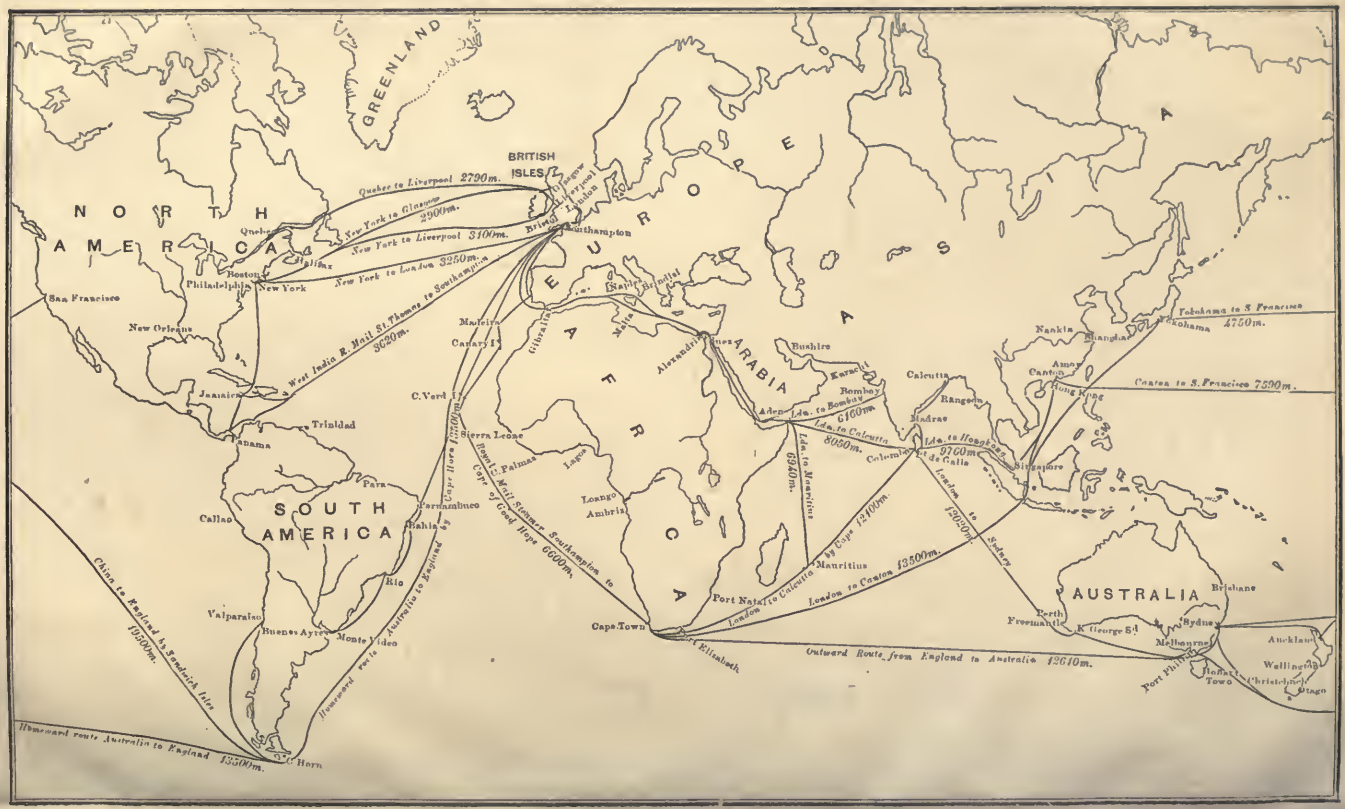
THE CO-OPERATIVE WHOLESALE SOCIETIES LIMITED

ANNUAL 1891.

Map of the World.

SHOWING ROUTES TO BRITISH POSSESSIONS FROM GREAT BRITAIN.



THE

CO-OPERATIVE

WHOLESALE SOCIETIES

LIMITED.

ENGLAND AND SCOTLAND.

ANNUAL FOR 1891.

PUBLISHED BY
THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED,
1, BALLOON STREET, MANCHESTER;
AND
THE SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED,
119, PAISLEY ROAD, GLASGOW.

MANCHESTER:
PRINTED AND BOUND BY
THE CO-OPERATIVE PRINTING SOCIETY,
AT THEIR WORKS,
NEW MOUNT STREET, ANGEL STREET.

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A24
1891

PREFACE.

WE have pleasure in presenting to the members this (our ninth) issue, and trust that our efforts to supply them with food for thought and reflection will meet with their approval. The subjects, without exception, we think, are of very great interest and concern to the industrial classes.

The manner in which the different subjects are treated by the various writers will, we are convinced, be a means of diffusing light and information, so much needed in the formation of a ripe and proper judgment, on questions pertaining to the public welfare.

Yours truly,

THE COMMITTEE.

TO THE MEMBERS
CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

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THE

Co-operative Wholesale Society

LIMITED.

PLATES, ADVERTISEMENTS, STATISTICS, &c.,

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THE GENERAL COMMITTEE

Are indicated thus *

THE NEWCASTLE BRANCH COMMITTEE

Are indicated thus †

THE LONDON BRANCH COMMITTEE

Are indicated thus ‡

THE AUDITORS

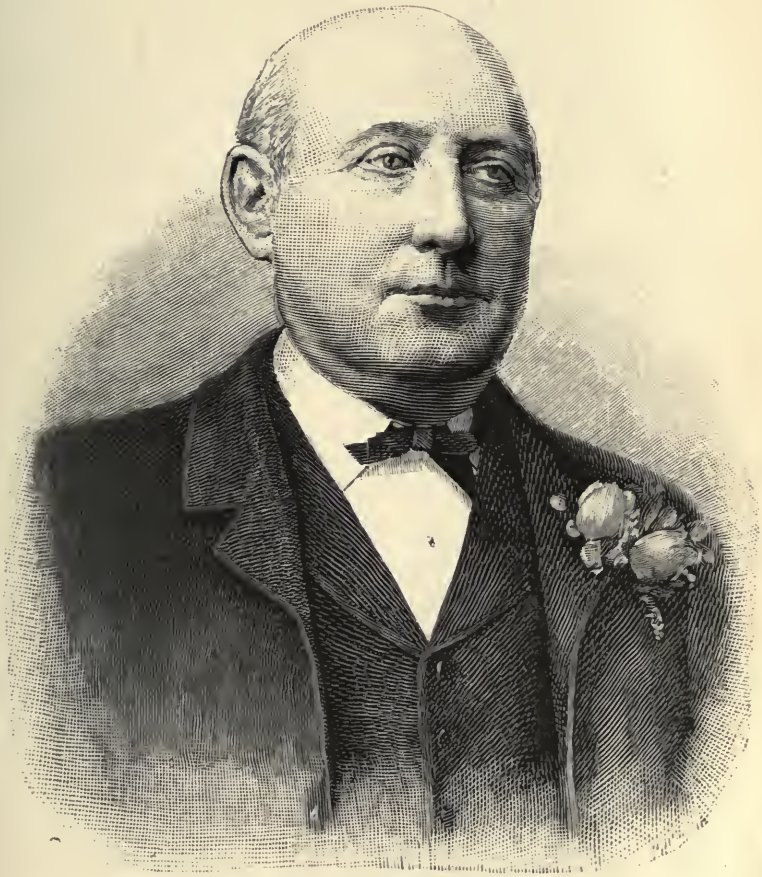
Are indicated thus §

ERRATA.

THE ENGLISH CONSTITUTION: ITS ORIGIN AND GROWTH.—Page 140, line 19 from top, read *affected* for "effected."

INDUSTRIAL LONDON.—Page 192, eighth line from the foot, read *1d.*, instead of "1½d." as printed.

THE RECENT HISTORY OF INDUSTRIAL PROGRESS.—Page 332, seventh line from bottom of page, for "1885" read *1855*.



*MR. J. T. W. MITCHELL, CHAIRMAN.

* MR. W. BATES.

* MR. T. BLAND.

* MR. E. GRINDROD.

* MR. E. HIBBERT.

*MR. T. HIND.

*MR. J. LORD.

* MR. J. LOWNDS.

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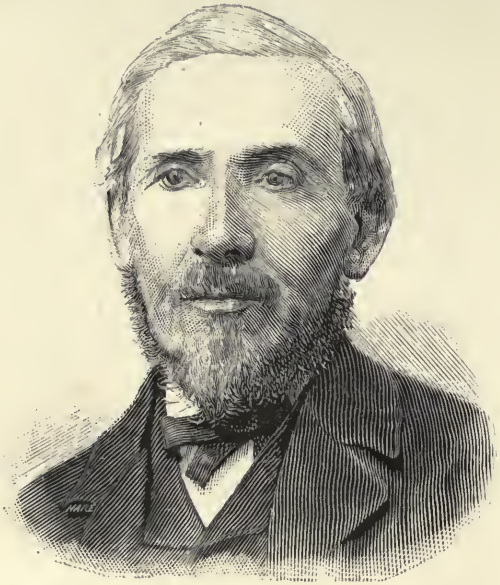
* MR. A. NORTH.

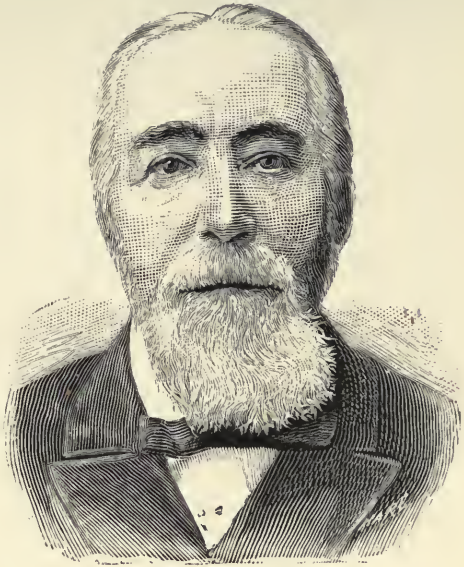
* MR. H. C. PINGSTONE.

* MR. A. SCOTTON.

* MR. J. SHILLITO.

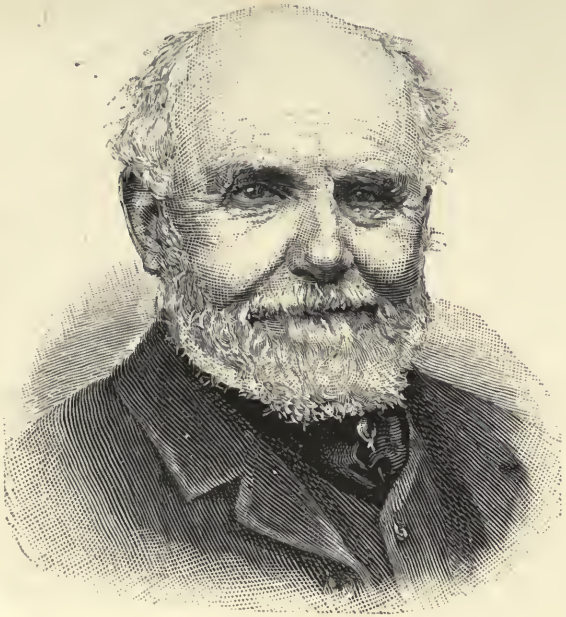


* MR. J. STANSFIELD.



* MR. T. SWANN.

*MR. S. TAYLOR.



† MR. M. BATES.

† MR. R. GIBSON.

† MR. W. GREEN.

† MR. G. SCOTT.

† MR. T. SHOTTON.

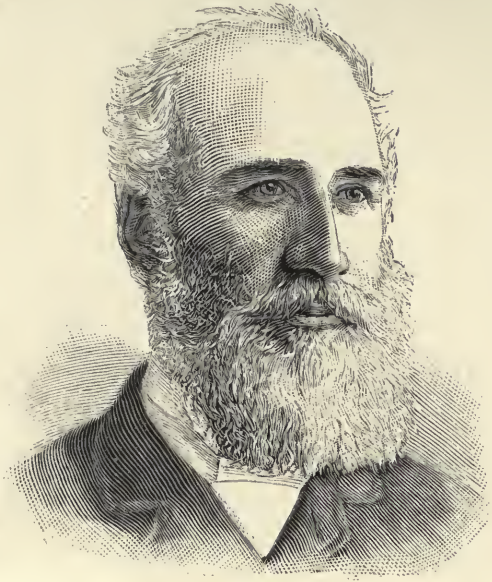
† MR. J. THIRLAWAY.

† MR. R. THOMPSON.

† MR. T. TWEDDELL.

‡ MR. J. CLAY.

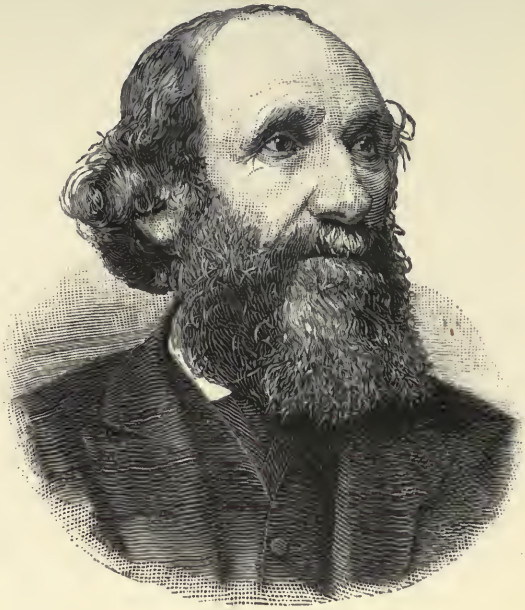
‡ MR. H. ELSEY,



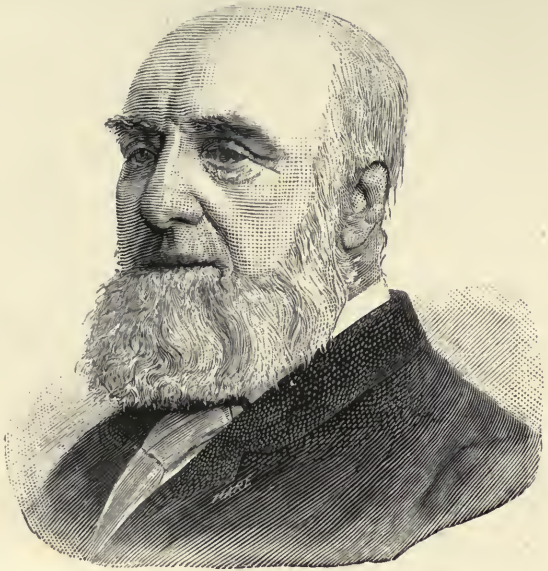
‡ MR. J. F. GOODEY.

‡ MR. G. HAWKINS.

‡ MR. G. HINES.



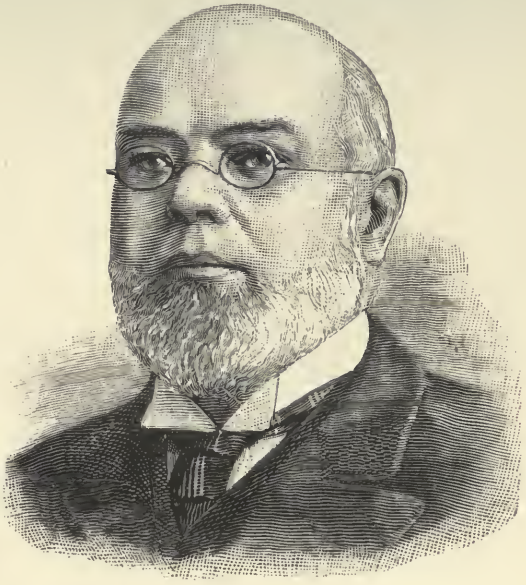
‡ MR. H. PUMPHREY.



‡ MR. G. SUTHERLAND.

‡ MR. T. E. WEBB.

§ MR. T. J. BAYLIS.

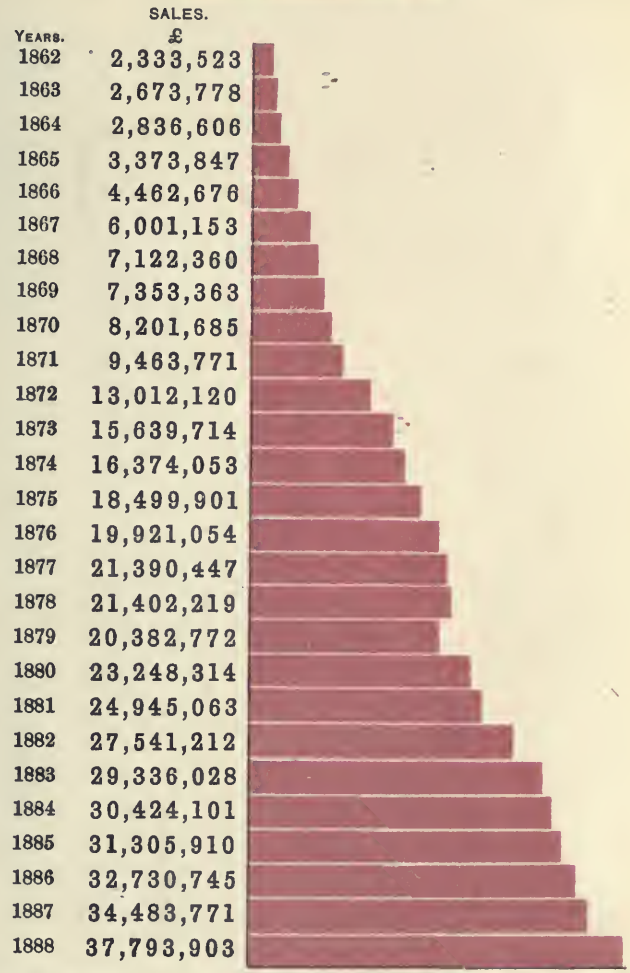


§ MR. I. HAIGH.

§ MR. J. E. LORD.

§ MR. T. WOOD.

Twenty-seven Years' Progress of Co-operative Societies in the United Kingdom.



TOTAL SALES IN THE TWENTY-SEVEN YEARS, 1862 TO 1888.. **£472,254,089**

TOTAL PROFITS IN THE TWENTY-SEVEN YEARS, 1862 TO 1888.. **£39,674,955**

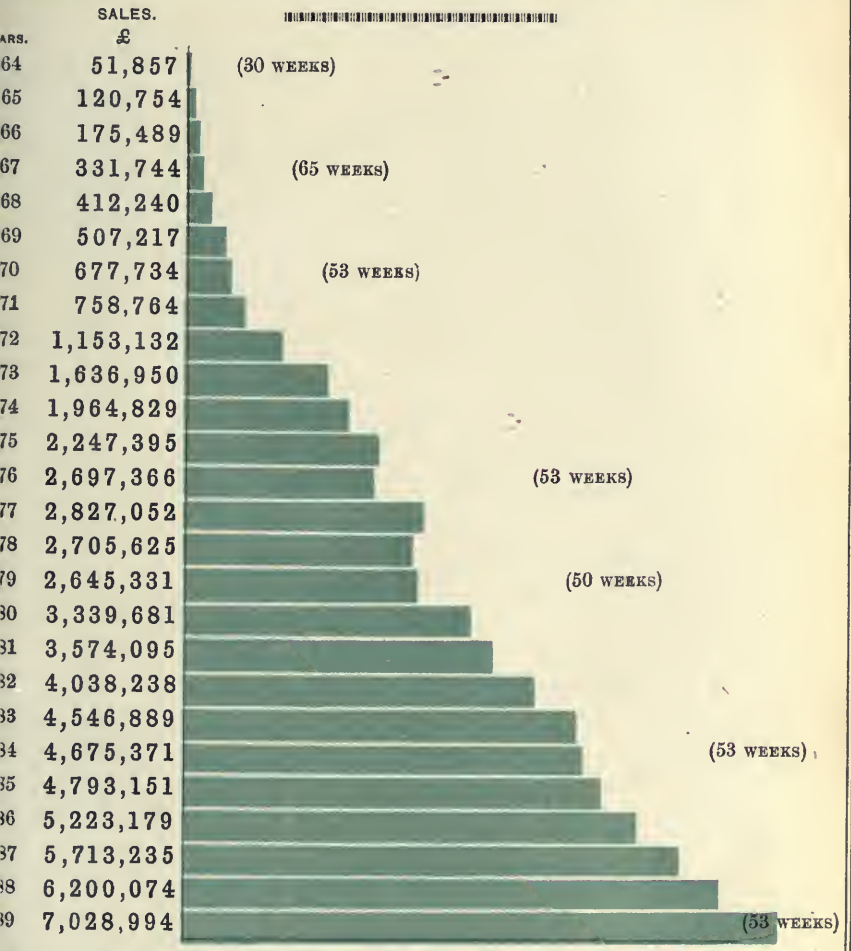
STATISTICAL POSITION OF CO-OPERATIVE SOCIETIES IN THE UNITED KINGDOM,

DECEMBER 31ST, 1888.

Compiled from the Returns made by Societies to the Registrar and Co-operative Union.

umber of Members	1,011,258	Sales for 1888	£37,793,903
hare Capital	£10,946,219	Net Profits for 1888	3,454,974
oan Capital	2,452,887	Devoted to Education, 1888	24,245

Twenty-six Years' Progress of the Co-operative Wholesale Society Limited.



TOTAL SALES IN THE TWENTY-SIX YEARS, 1864 TO 1889 .... **£70,046,336**

TOTAL PROFITS IN THE TWENTY-SIX YEARS, 1864 TO 1889 .... **£901,670**

NOTE.—The above diagram is constructed to show the proportionate yearly variation in the sales. The size of each space is calculated on the basis of a year of 52 weeks.

STATISTICAL POSITION OF THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED,

DECEMBER 28TH, 1889.

			£
mber of Societies holding Shares	900	Reserve Fund—Trade and Bank.....	58,358
mber of Members belonging to Share-holders	679,336	Insurance Fund.....	119,541
are Capital	£342,218	Sales for Year 1889	7,028,994
ns and Deposits	£722,321	Net Profits for Year 1889	101,984

MANCHESTER:

REGISTERED OFFICES, BANK, CENTRAL GROCERY AND PROVISION WAREHOUSES,

BALLOON STREET.—SEE PAGES 12, 14, 42, 44, 69, AND 78.

MANCHESTER DRAPERY DEPARTMENT.

See pages 20, 32, 42, 45, 69, and 79.

PLAN OF MANCHESTER.

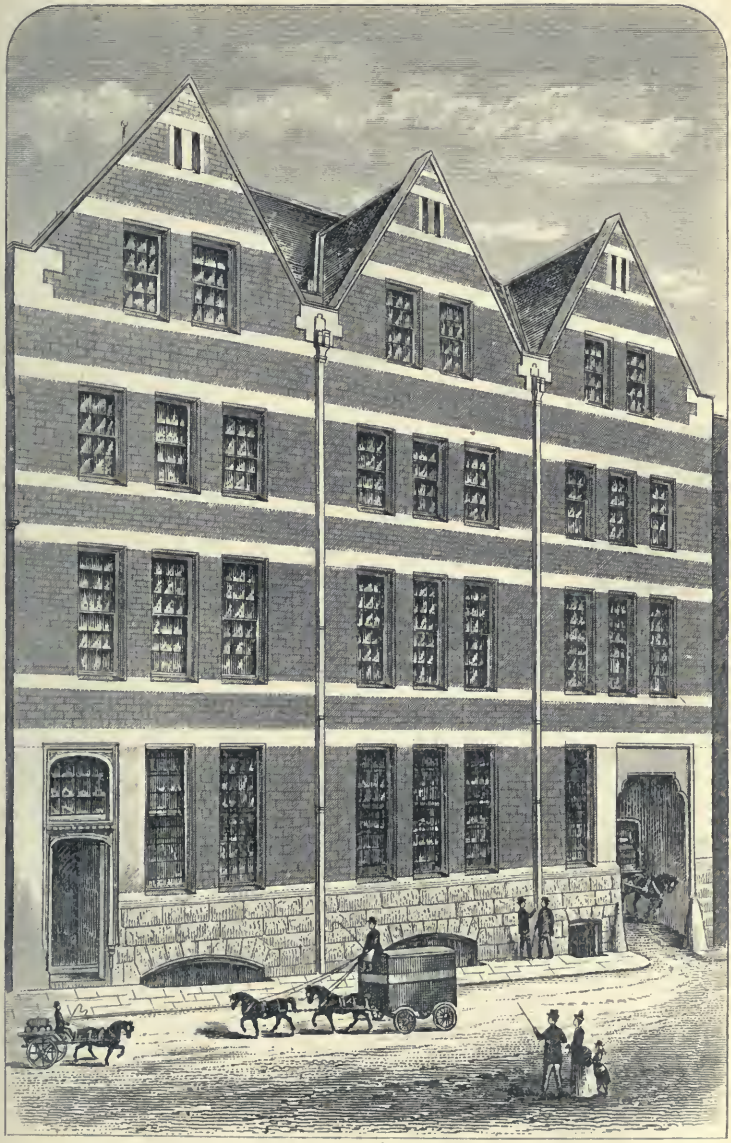
Showing the most Direct Route to the Co-operative Wholesale Society's Central Offices and Warehouse, from the Railway Stations and Principal Places.

NEWCASTLE BRANCH,

WATERLOO STREET, NEWCASTLE-UPON-TYNE.—SEE PAGES 42, 51, 53, 72, 73, AND 80.

NEWCASTLE PROVISION WAREHOUSE,

THORNTON STREET.



NEWCASTLE FURNISHING WAREHOUSE,
THORNTON STREET.

PLAN OF NEWCASTLE,

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S NEWCASTLE BRANCH PREMISES, FROM THE RAILWAY STATION AND PRINCIPAL PLACES.

LONDON BRANCH:

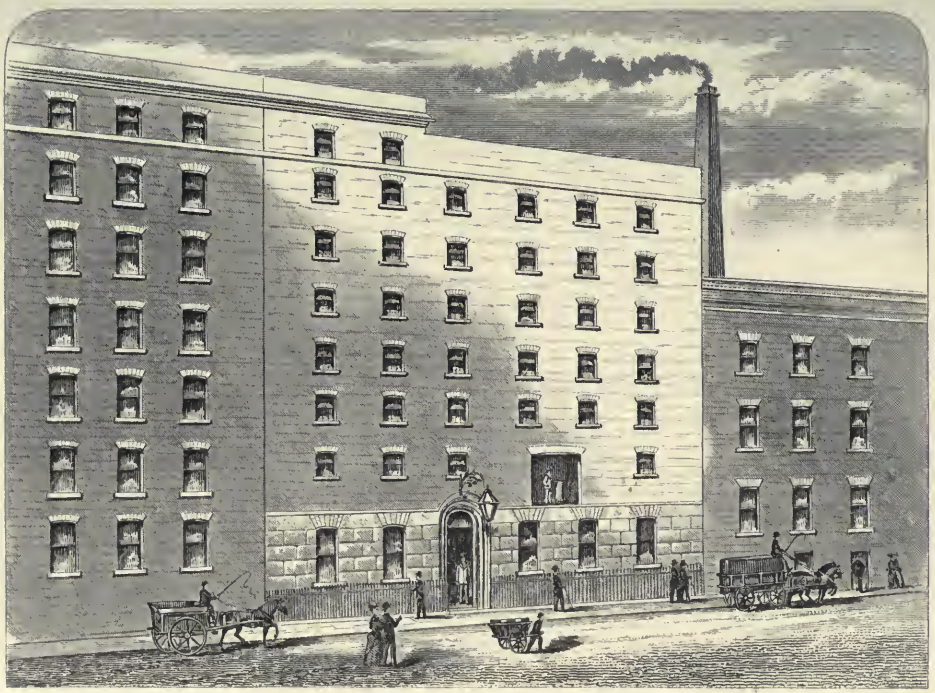
GENERAL OFFICES, GROCERY AND DRAPERY DEPARTMENTS AND CO-OPERATIVE HALL,

LEMAN STREET, E.—SEE PAGES 42, 54, 57, 73, 74, AND 81.

LONDON TEA DEPARTMENT.

Nº1.	Nº2.	Nº3	Nº4
OFFICES.	TASTING ROOMS & DELIVERY DEPARTMENT.	TEA BLENDING & PACKING DEPARTMENT.	ORIGINAL IMPORTED TEA & RECEIVING DEPARTMENT.

See pages 15, 17, and 42.

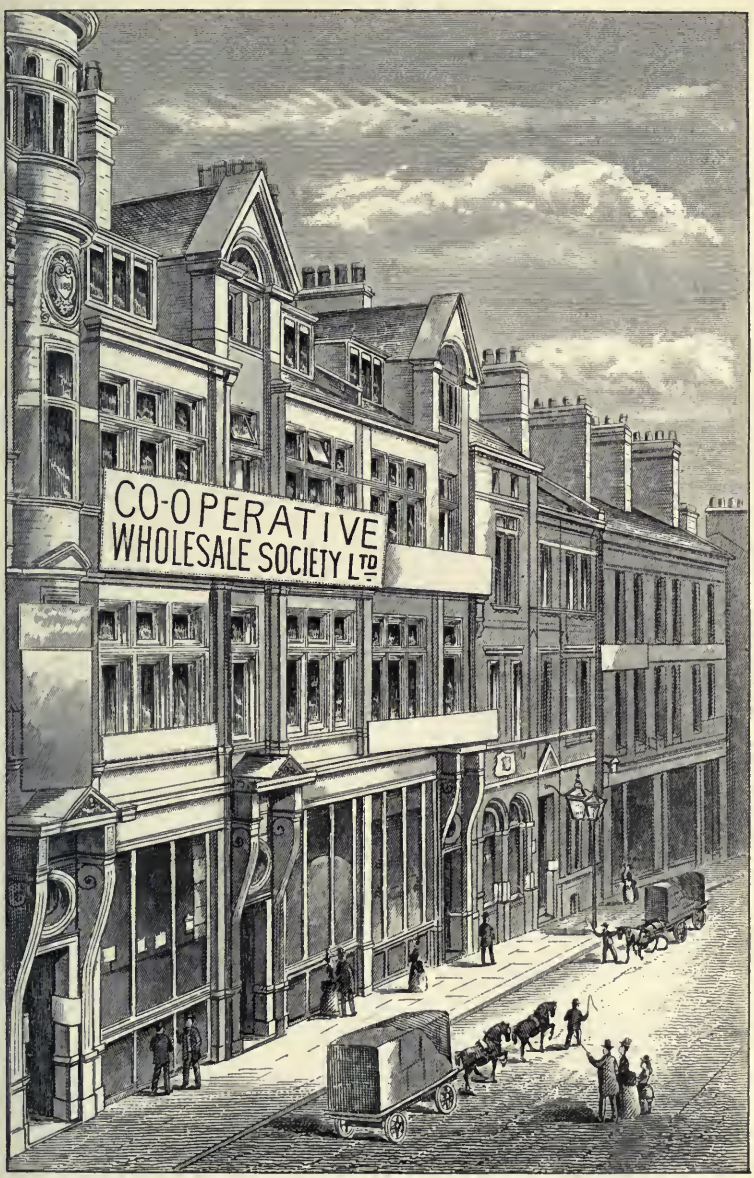


LONDON COCOA AND CHOCOLATE WORKS,

116, LEMAN STREET.—SEE PAGES 17, 19, AND 42.

MAP OF LONDON,

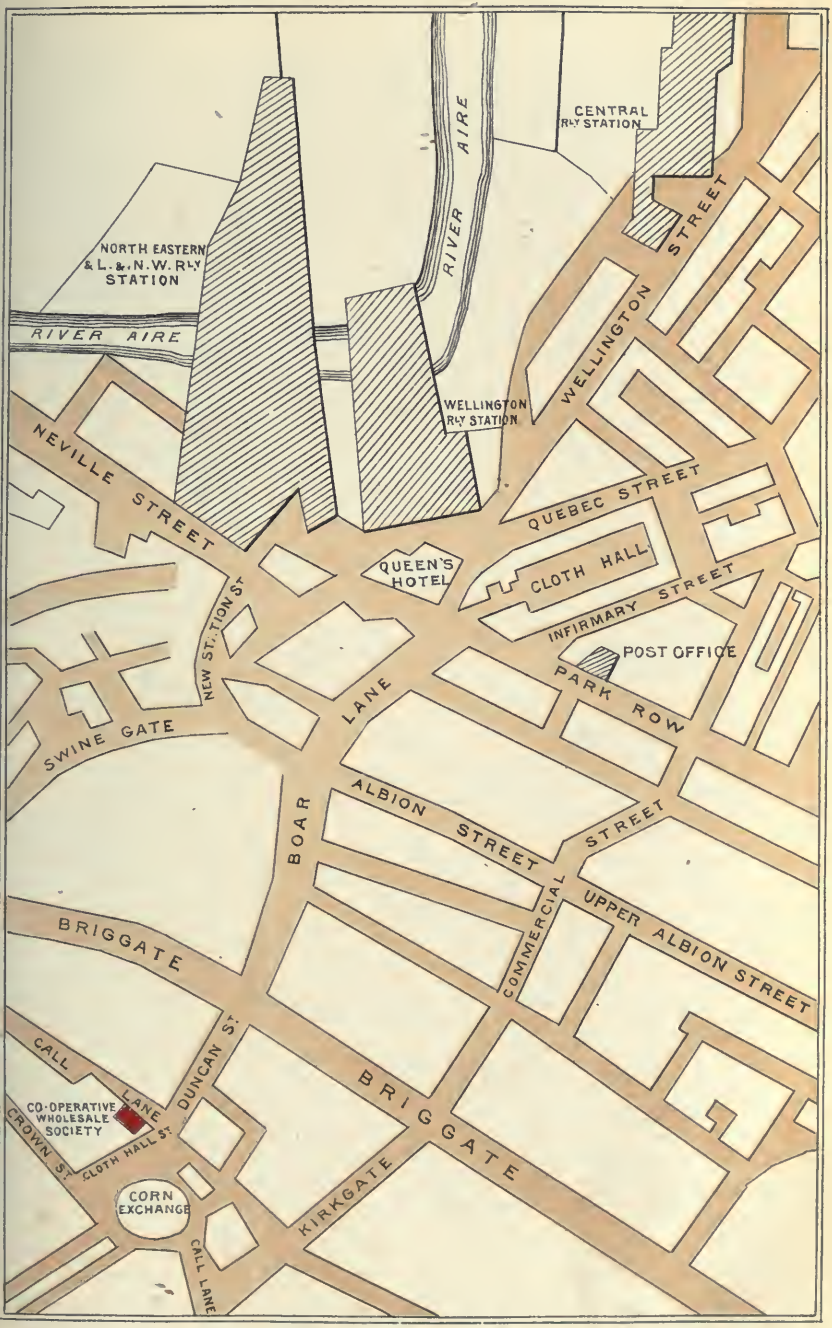
SHOWING THE LONDON BRANCH, LEMAN STREET, E., AND THE PRINCIPAL RAILWAY STATIONS.



LEEDS, 33, CALL LANE.

PLAN OF LEEDS,

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S SALE AND SAMPLE ROOM, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.

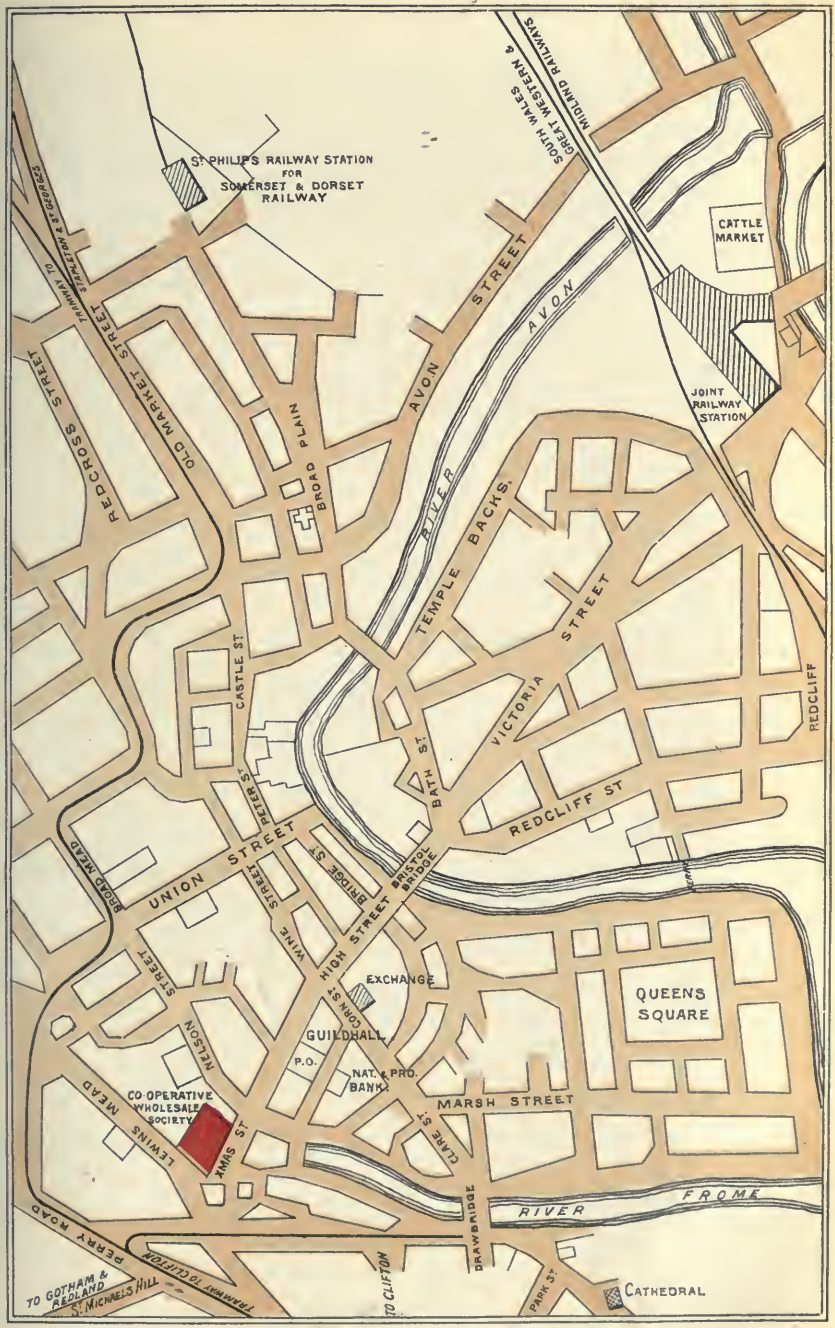


BRISTOL DEPOT,

CHRISTMAS STREET.—SEE PAGE 42.

PLAN OF BRISTOL,

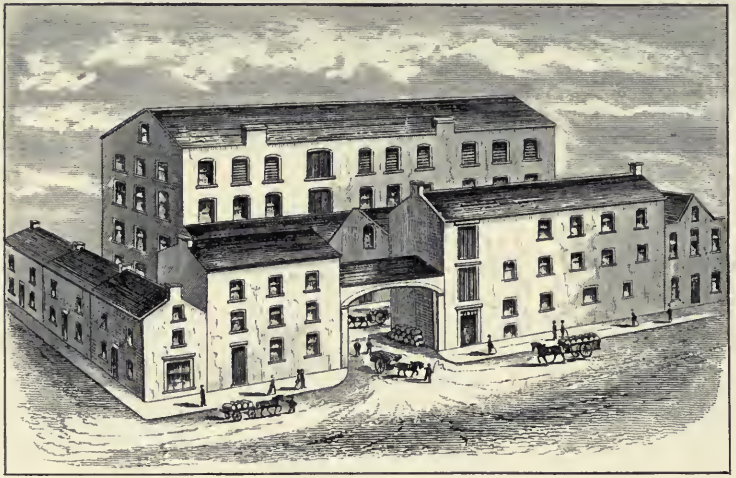
Showing the most Direct Route to the Co-operative Wholesale Society's Bristol Depot, from the Railway Stations and Principal Places.



LIVERPOOL WAREHOUSES, TEMPLE LANE.

OFFICE: 7, VICTORIA STREET.

NEW YORK PRODUCE EXCHANGE, BROADWAY, NEW YORK,
IN WHICH THE SOCIETY'S OFFICES ARE SITUATE.

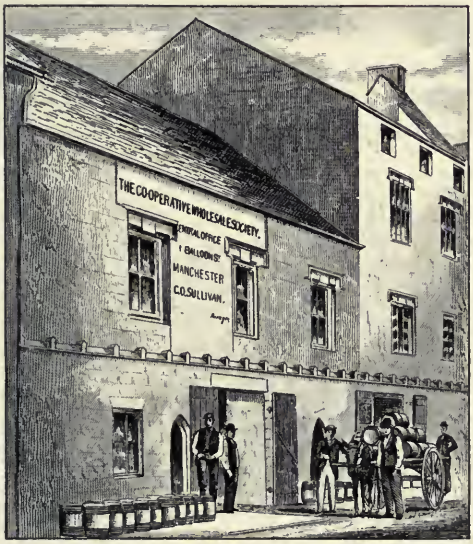


CORK BRANCH,

JOHN STREET, CORK, IRELAND.

LIMERICK BRANCH,

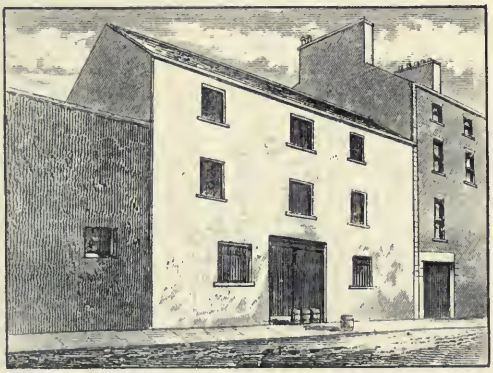
MULGRAVE STREET, LIMERICK, IRELAND.



KILMALLOCK BRANCH,

KILMALLOCK, IRELAND.

TRALEE BRANCH,
TRALEE, IRELAND.

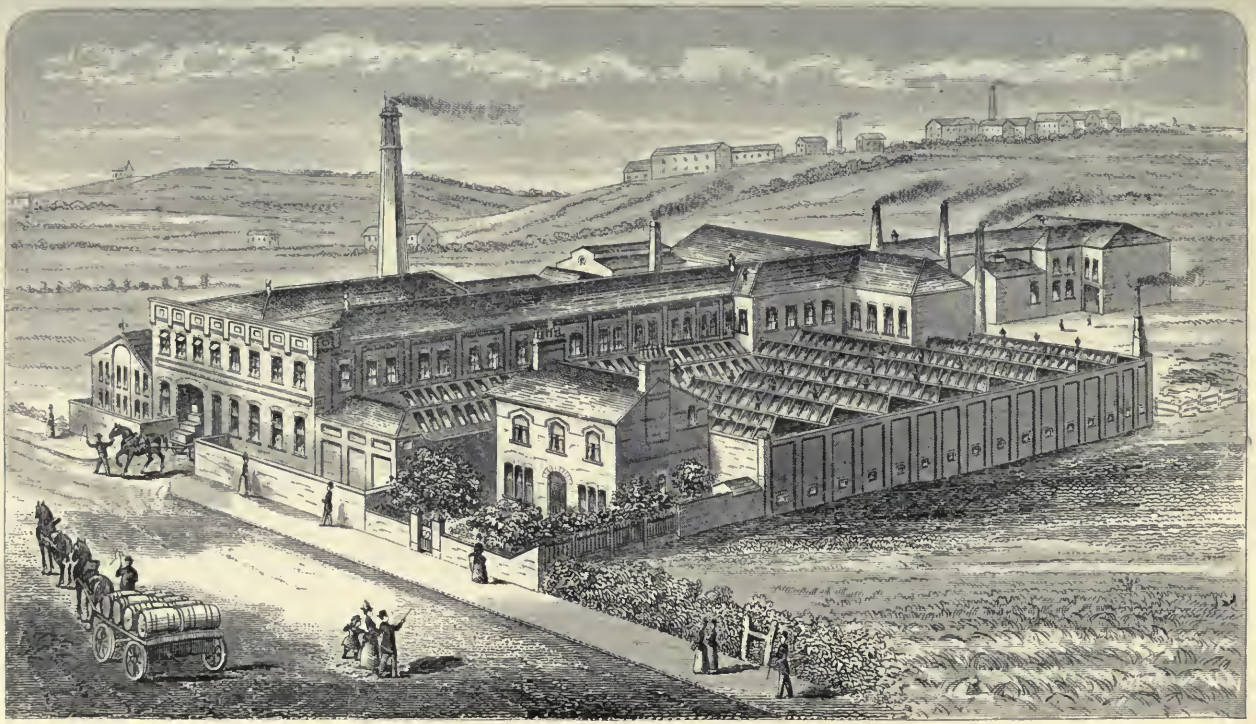


WATERFORD BRANCH.

ARMAGH BRANCH.

COPENHAGEN BRANCH,
HAVNEGADE, 41.

HAMBURG BRANCH.

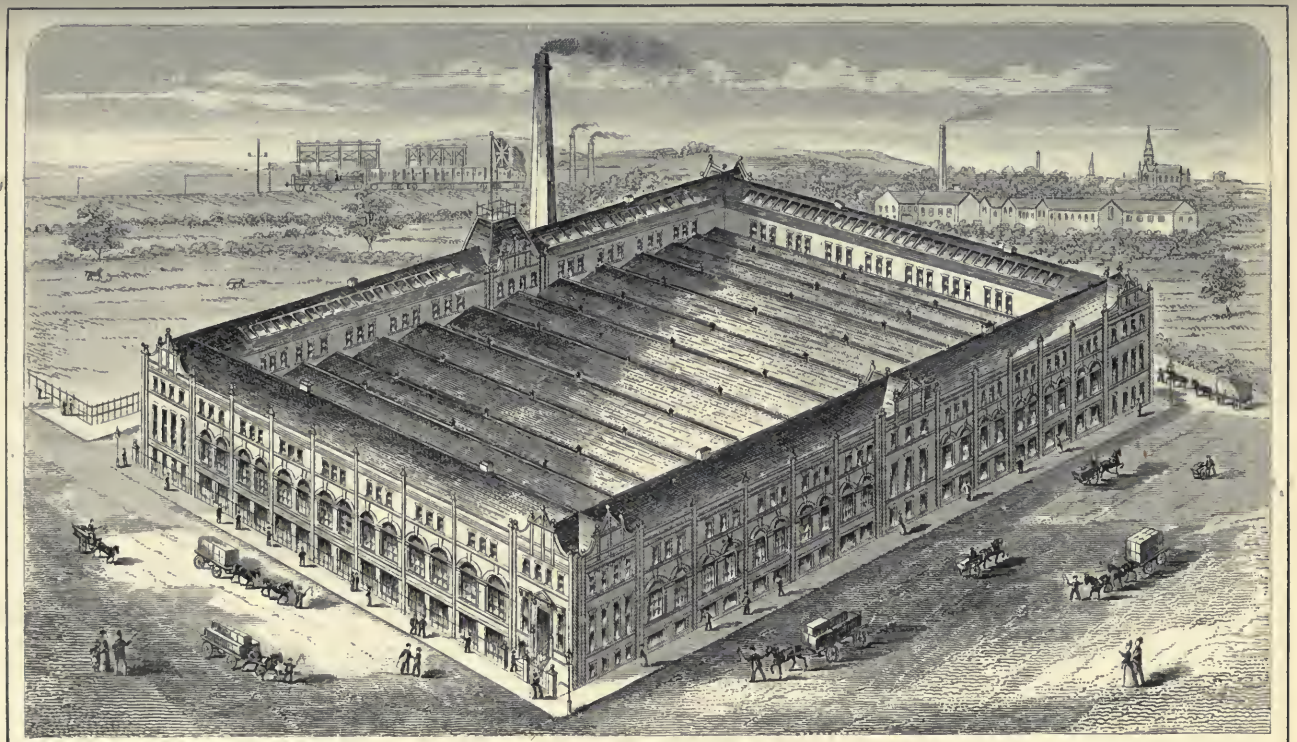


CRUMPSALL WORKS.

See pages 25, 42, 56, and 74.

LEICESTER BOOT AND SHOE WORKS.

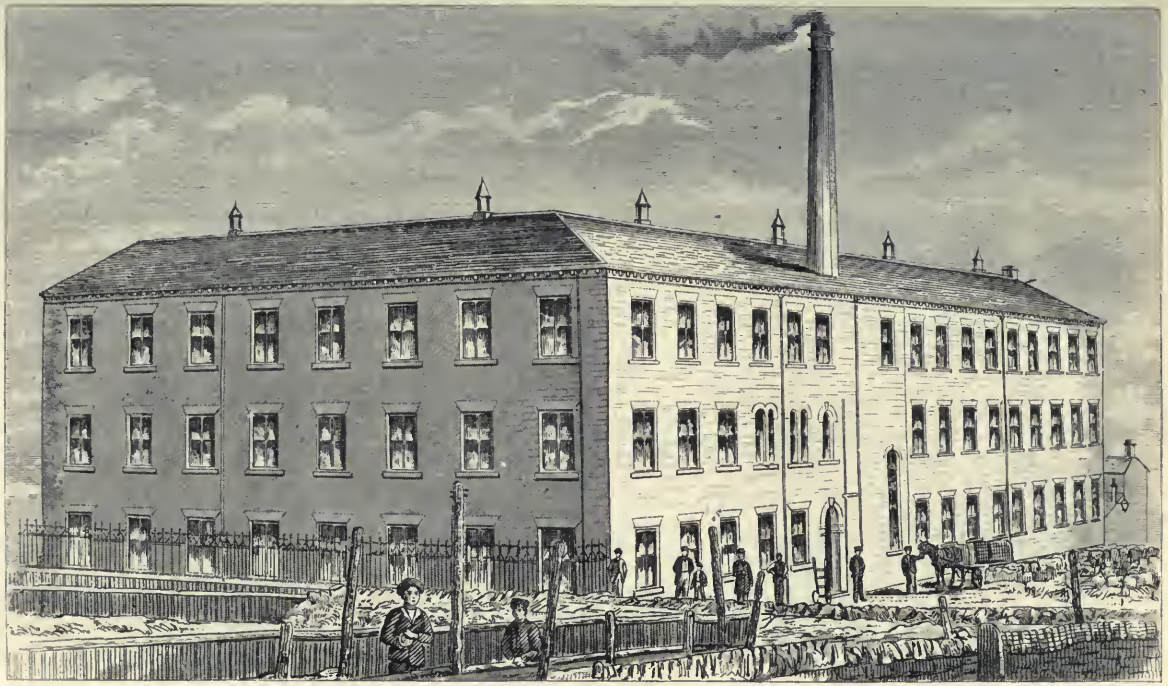
See pages 27, 42, 60, and 75.



LEICESTER BOOT AND SHOE WORKS.

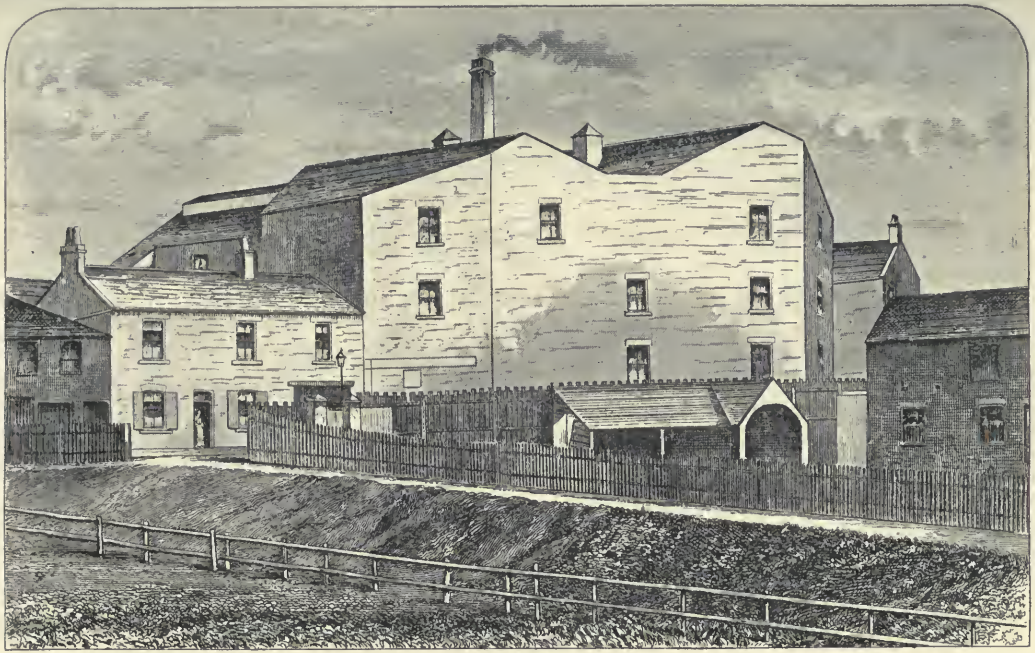
PLAN OF LEICESTER,

SHOWING THE MOST DIRECT ROUTE TO THE CO-OPERATIVE WHOLESALE SOCIETY'S BOOT AND SHOE WORKS, FROM THE RAILWAY STATIONS AND PRINCIPAL PLACES.



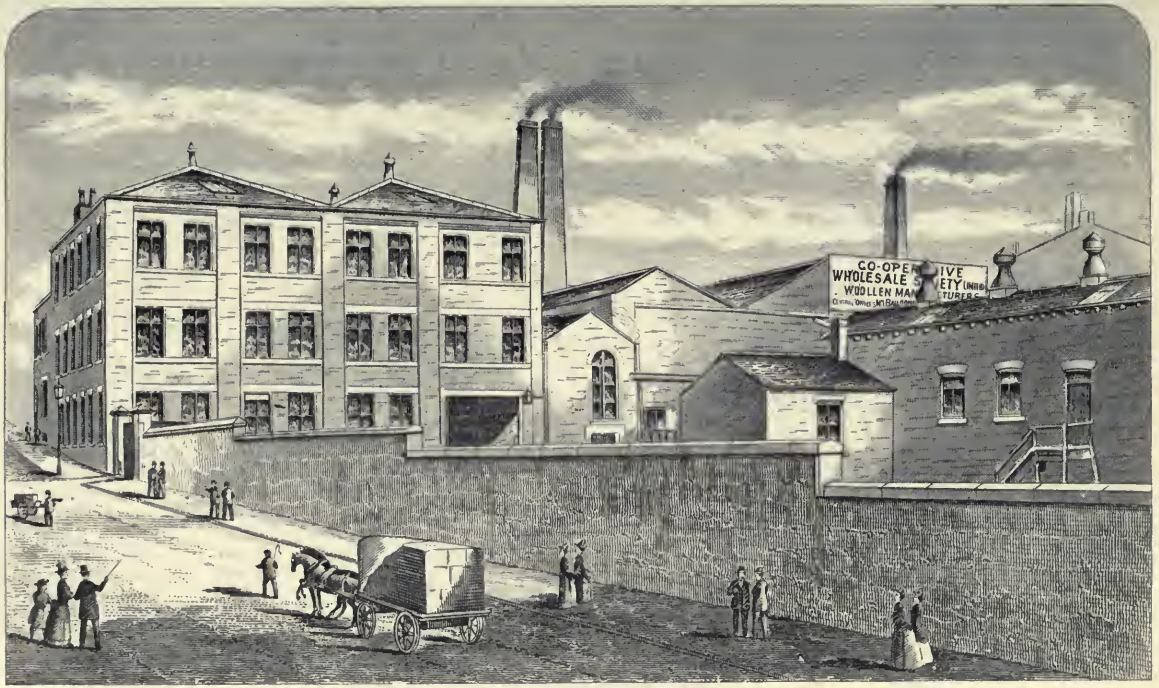
HECKMONDWIKE BOOT AND SHOE WORKS.

See pages 29, 42, 58, and 75.

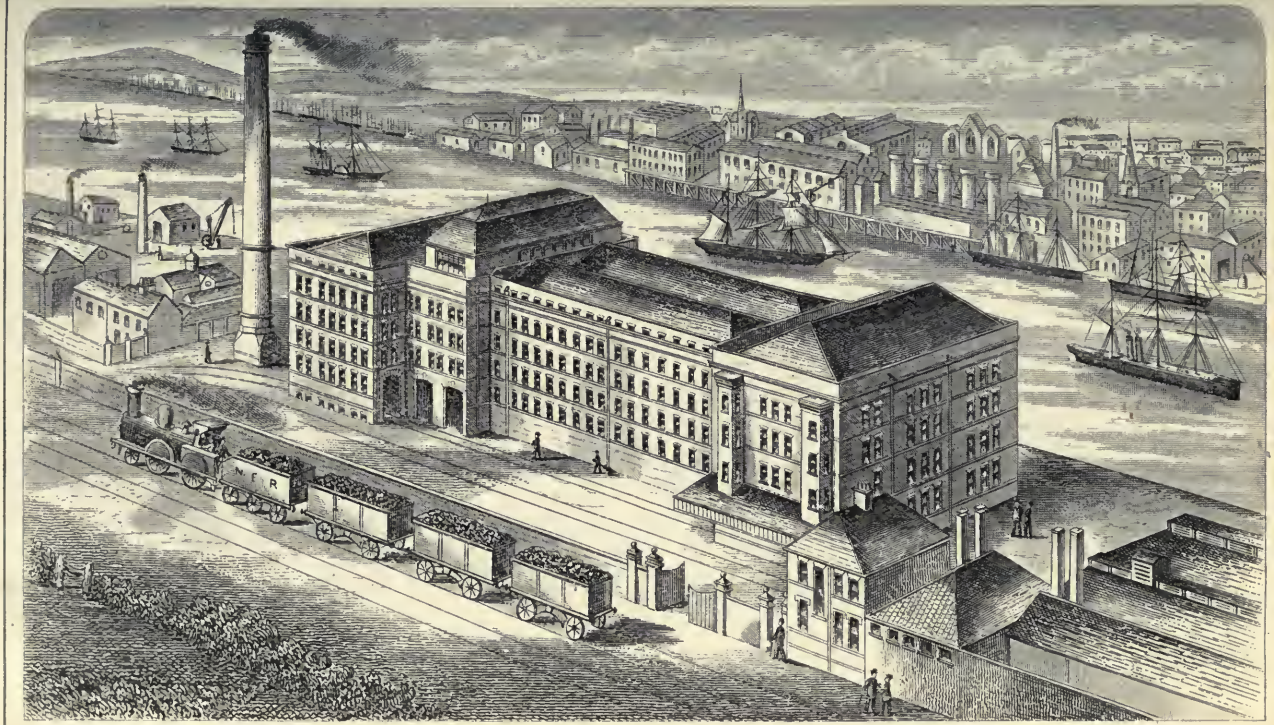


DURHAM SOAP WORKS.

See pages 30, 42, 64, and 76.



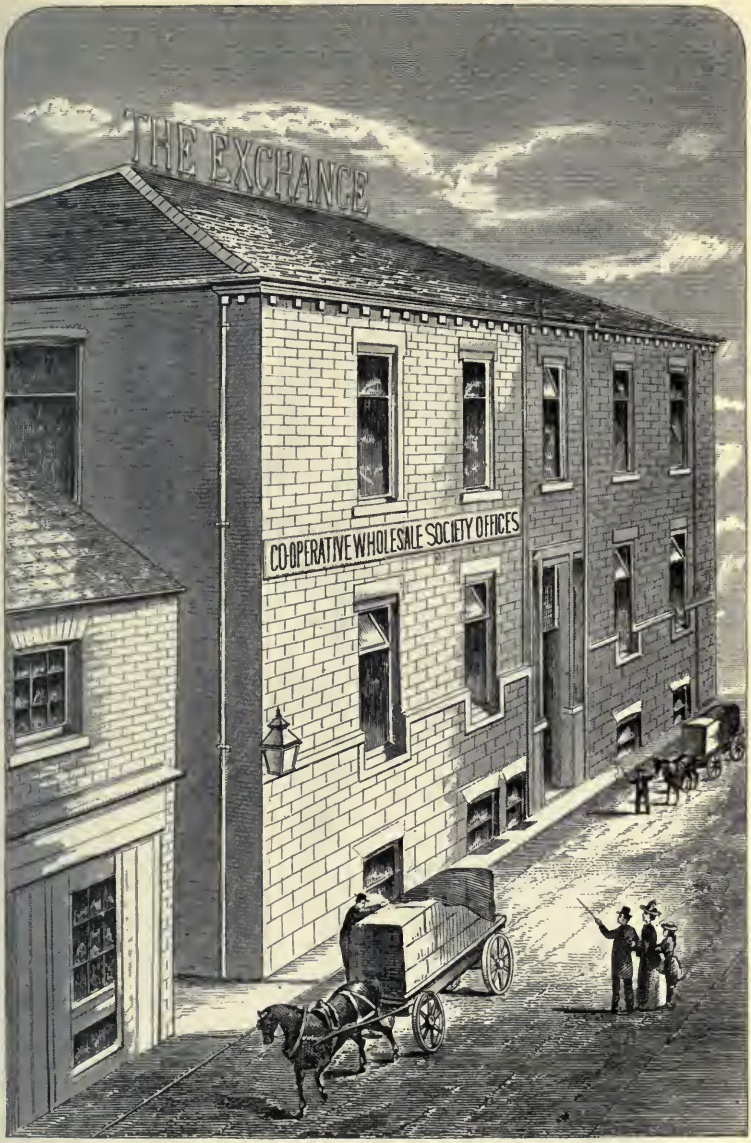
LIVINGSTONE MILL, BATLEY,
WOOLLEN CLOTH WORKS AND READY-MADE DEPARTMENT.
See pages 31, 42, 66-7, and 77.



DUNSTON CORN MILL.

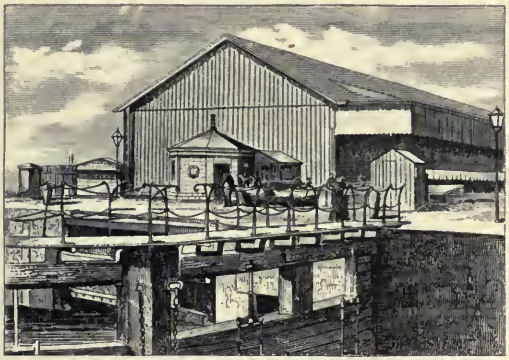
LONGTON CROCKERY DEPOT.

See pages 24, 42, 68, and 77.



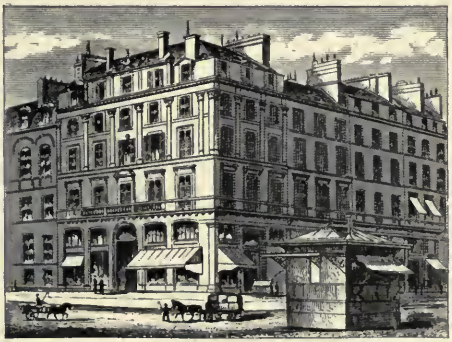
GOOLE OFFICES.

GOOLE WAREHOUSE.



GARSTON OFFICES,

West Side, New Dock, Garston, near Liverpool.

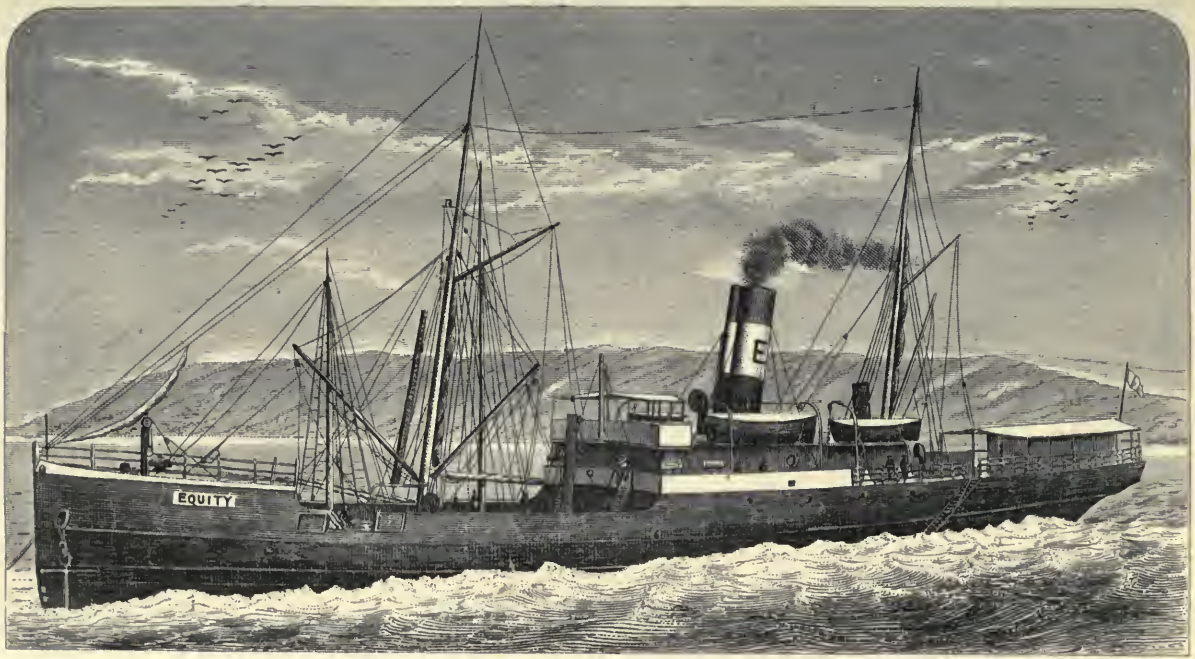


ROUEN OFFICES,

2, Rue Jeanne d'Arc, Rouen, France.

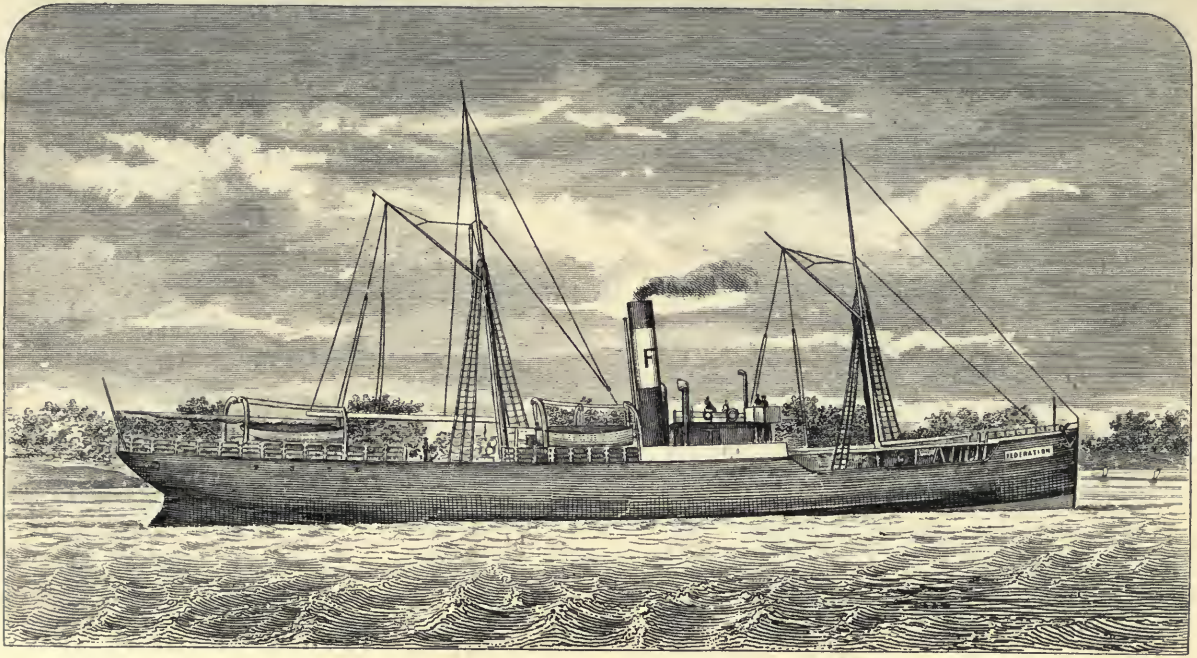
S.S. "LIBERTY."

GOOLE-HAMBURG LINE.—SEE PAGES 36 AND 42.



S.S. "EQUITY."

GOOLE-HAMBURG LINE.—SEE PAGES 36 AND 42.



S.S. "FEDERATION."

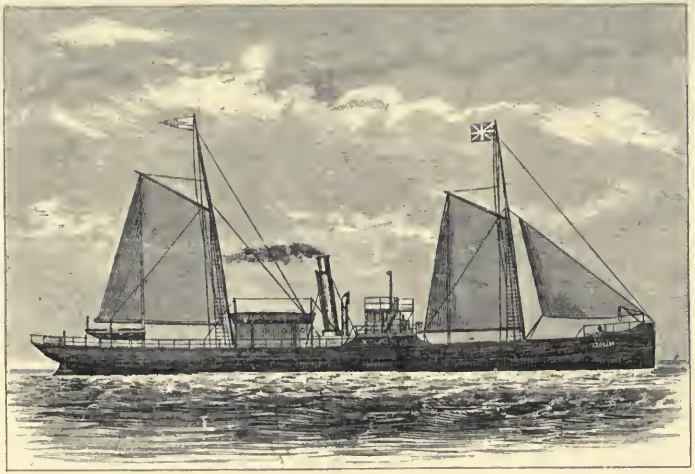
GOOLE-HAMBURG LINE.—SEE PAGES 86 AND 42.

S.S. "PIONEER."

GOOLE-CALAIS LINE.—SEE PAGES 35 AND 42.

S.S. "UNITY."

GARSTON-ROUEN LINE.—SEE PAGES 34 AND 42.



S.S. "PROGRESS."

GOOLE-CALAIS LINE.—SEE PAGES 35 AND 42.

THE

Co-operative Wholesale Society

LIMITED.

Enrolled August 11th, 1863, under the Provisions of the Industrial and Provident Societies Act, 25 and 26 Vict., cap. 87, sec. 15, 1862.

Business commenced March 14, 1864. Shares, £5 each, Transferable.

CENTRAL OFFICES, BANK, AND GROCERY AND PROVISION WAREHOUSE:

BALLOON STREET, MANCHESTER.

DRAPERY, WOOLLEN CLOTH, AND READY-MADES WAREHOUSES:

DANTZIC STREET, MANCHESTER.

BOOT AND SHOE AND FURNITURE WAREHOUSES:

HOLGATE STREET, MANCHESTER.

BRANCHES:

WATERLOO STREET, NEWCASTLE-ON-TYNE, AND LEMAN STREET, LONDON, E.

PURCHASING AND FORWARDING DEPOTS:

ENGLAND: LIVERPOOL, BRISTOL, LONGTON, GOOLE, AND GARSTON.

IRELAND: CORK, LIMERICK, KILMALLOCK, WATERFORD, TRALEE, AND ARMAGH.

AMERICA: NEW YORK. FRANCE: CALAIS AND ROUEN.

DENMARK: COPENHAGEN. GERMANY: HAMBURG.

SALEROOMS: LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, AND NORTHAMPTON.

BISCUIT AND SWEET WORKS, AND DRY AND SOFT SOAP WORKS: CRUMPSALL, NEAR MANCHESTER.

BOOT AND SHOE WORKS: LEICESTER AND HECKMONDWIKE.

SOAP WORKS: DURHAM.

WOOLLEN CLOTH WORKS: LIVINGSTONE MILL, BATLEY.

READY-MADE DEPARTMENTS: BATLEY AND LEEDS.

COCOA AND CHOCOLATE WORKS: 116, LEMAN STREET, LONDON.

CORN MILL: DUNSTON-ON-TYNE.

SHIPOWNERS AND SHIPPERS:

BETWEEN GARSTON AND ROUEN; GOOLE AND CALAIS; GOOLE AND HAMBURG.

STEAMSHIPS OWNED BY THE SOCIETY:

"PIONEER," "UNITY," "PROGRESS," "FEDERATION," "EQUITY," AND "LIBERTY."

BANKERS:

THE MANCHESTER AND COUNTY BANK LIMITED.
THE LONDON AND COUNTY BANK.
THE NATIONAL PROVINCIAL BANK OF ENGLAND.
THE MANCHESTER AND LIVERPOOL DISTRICT BANK.
THE LANCASHIRE AND YORKSHIRE BANK.
THE UNION BANK OF MANCHESTER.

General Committee.

President:	Secretary:
Mr. J. T. W. MITCHELL, 15, John Street, Rochdale.	Mr. THOMAS SWANN, Beech Villa, James Street, Masborough.

Mr. WILLIAM BATES .....Green Lane, Patricroft.
Mr. THOMAS BLAND.....Rashcliffe, Huddersfield.
Mr. E. GRINDROD .....8, Apsley Street, Keighley.
Mr. E. HIBBERT .....7, Wicken Tree Lane, Failsworth.
Mr. THOMAS HIND .....3, Grey Friars, Leicester.
Mr. JOHN LORD .....16, Steiner Street, Accrington.
Mr. JAMES LOWNDS.....92, Catherine Street, Ashton-under-Lyne.
Mr. T. E. MOORHOUSE ....*Reporter* Office, Delph.
Mr. ALFRED NORTH.....Mount Pleasant, Batley.
Mr. H. C. PINGSTONE .....Market Street, Manchester.
Mr. A. SCOTTON .....48, Co-operative Street, Derby.
Mr. JOHN SHILLITO .....17, Cavendish Terrace, Halifax.
Mr. JOHN STANSFIELD ....Jeremy Lane, Heckmondwike.
Mr. SAMUEL TAYLOR .....52, Castle Street, Bolton.

NEWCASTLE BRANCH COMMITTEE.

Chairman:	Secretary:
Mr. GEORGE SCOTT, Co-op. Society, Newbottle, Fencehouses, Durham.	Mr. JOHN THIRLAWAY, 16, Grasmere Street, Gateshead.

Mr. MATTHEW BATES.....Blaydon Burn, Blaydon-on-Tyne.
Mr. ROBERT GIBSON .....42, Stone Street, Newcastle-on-Tyne.
Mr. WILLIAM GREEN .....Co-operative Society, Clay Path, Durham.
Mr. THOMAS SHOTTON ....Cemetery Road, Blackhill, Durham.
Mr. RICHARD THOMPSON ..9, Garden Place, Bishopwearmouth, Sunderland.
Mr. T. TWEDDELL.....Cleveland Terrace, West Hartlepool.

LONDON BRANCH COMMITTEE.

Chairman:	Secretary:
Mr. GEORGE HINES, Croft Street, Ipswich.	Mr. HENRY PUMPHREY, Paddock Terrace, Lewes.

Mr. JOSEPH CLAY .....Stratton Road, Gloucester.
Mr. H. ELSEY .....9, Lyndwood Terrace, Lawrence Road, Southsea.
Mr. J. F. GOODEY .....New Town Lodge, Colchester.
Mr. GEO. HAWKINS .....53, Kingston Road, Oxford.
Mr. GEO. SUTHERLAND ....78, Maxey Road, Plumstead.
Mr. T. E. WEBB .....Co-operative Society, 1, Plough Lane, York Road, Battersea, London, S.W.

AUDITORS.

Mr. THOS. J. BAYLIS, Rotherham.	Mr. JAMES E. LORD, Rochdale.
Mr. ISAAC HAIGH, Barnsley.	Mr. THOMAS WOOD, Manchester.

Officers of the Society.

ACCOUNTANT.	CASHIER.
Mr. THOMAS BRODRICK, Eccles.	Mr. A. GREENWOOD, Rochdale.

BUYERS, SALESMEN, &c.

MANCHESTER—Grocery and Provisions:

Mr. ISAAC TWEEDALE.	Mr. GEORGE GARLICK.
Mr. THOMAS PEARSON.	Mr. WILLIAM WROOT.

MANCHESTER—Drapery:

Mr. JAMES FLETCHER.	Mr. JOHN SHARROCKS.
Mr. WILLIAM T. ALLITT.	Mr. JOHN T. OGDEN.

MANCHESTER—Woollen Cloth.....Mr. HENRY HADDOW.
" Boot and Shoe.....Mr. HENRY JACKSON.
" Furniture .....Mr. JOSEPH ATKIN.
" Traveller—Grocery and Provisions ....Mr. R. TURNER.
" " Pro. Societies and Drapery..Mr. JOS. PICKERSGILL.
" " " " ..Mr. J. MEADOWCROFT.
SHIPPING DEPARTMENT—General Manager .....Mr. CHAS. R. CAMERON.
LONDON—Tea, Coffee, and Cocoa .....Mr. CHARLES FIELDING.
LIVERPOOL—Grocery and Provisions.....Mr. ARTHUR W. LOBB.
LEEDS—Saleroom.....Mr. JOSEPH HOLDEN.
NOTTINGHAM—Saleroom .....Mr. G. T. TOWNSEND.
HUDDERSFIELD—Saleroom .....Mr. GEO. BARLASS.
LONGTON—Crockery Depôt.....Mr. J. RHODES.
NEWCASTLE—Chief Clerk .....Mr. H. R. BAILEY.
" Grocery and Provisions .....Mr. ROBT. WILKINSON.
" " .....Mr. T. WEATHERSTONE.
" Drapery .....Mr. JOHN Mc.KENZIE.
" Boot and Shoe .....Mr. O. JACKSON.
" Furniture and Hardware .....Mr. J. W. TAYLOR.
LONDON—Grocery and Provisions.....Mr. BENJAMIN JONES.
" " .....Mr. WM. OPENSHAW.
" Drapery .....Mr. F. G. WADDINGTON.
" Boots and Shoes .....Mr. ALFRED PARTRIDGE.
" Furnishing .....Mr. F. E. ODDY.
" Chief Clerk .....Mr. WILLIAM STRAWN.
BRISTOL DEPÔT.....Mr. THOS. FOULKES.
NORTHAMPTON—Saleroom .....Mr. A. BAKER.
CORK—Butter .....Mr. WILLIAM H. STOTT.
LIMERICK—Butter .....Mr. WILLIAM L. STOKES.
KILMALLOCK " .....Mr. THOS. G. O'SULLIVAN.
WATERFORD " .....Mr. J. SLATTERY.
TRALEE—Butter and Eggs .....Mr. JAMES DAWSON.
ARMAGH " " .....Mr. J. HOLLAND.
NEW YORK, AMERICA—Cheese, &c. .....Mr. JOHN GLEDHILL.
" " " .....Mr. JAMES M. PERCIVAL.
COPENHAGEN, DENMARK—Butter, Flour, &c. .....Mr. JOHN ANDREW.
HAMBURG—Butter, Flour, &c. .....Mr. WM. DILWORTH.
ROUEN, FRANCE-Shipping and Forwarding Depôt ....Mr. JAMES MARQUIS.
GOOLE " " ....Mr. W. J. SCHOFIELD.
CALAIS " " ....Mr. WILLIAM HURT.
LOWER CRUMPSALL BISCUIT WORKS .....Mr. THOMAS HAYES.
LEICESTER BOOT AND SHOE WORKS .....Mr. JOHN BUTCHER.
HECKMONDWIKE BOOT AND SHOE WORKS.....Mr. J. W. HEMMINGS.
DURHAM SOAP WORKS.....Mr. J. E. GREEN.
BATLEY WOOLLEN CLOTH WORKS.....Mr. S. BOOTHROYD.
" AND LEEDS READY-MADE DEPARTMENT.....Mr. WILLIAM UTTLEY.
" " " Traveller.....Mr. J. STEAD.
DUNSTON CORN MILL .....Mr. LEWIS DYSON.

Employés.

NUMBER OF EMPLOYÉS, AUGUST, 1890.

MANCHESTER—General Drapery, Boot and Shoe, and Furnishing Offices		161
,,	Cashier's Office	11
,,	Grocery Department	116
,,	Drapery ,,	59
,,	Woollen Cloth ,,	64
,,	Boot and Shoe ,,	22
,,	Furnishing ,,	25
,,	Shipping ,,	3
,,	Building ,,	238
,,	Dining-room ,,	6
,,	Other ,,	17
	Total Manchester	722
Newcastle Branch		218
,,	Building Department	160
London Branch		137
,,	Building Department	20
,,	Tea ,,	300
,,	Stables	12
Leeds Saleroom		3
Nottingham Saleroom		1
Bristol Depôt		20
Liverpool Branch—Grocery and Shipping		18
Longton—Crockery Department		14
Irish Branches		31
Rouen Branch		4
Goole ,,		12
Calais ,,		3
Garston ,,		2
New York Branch		6
Copenhagen ,,		5
Hamburg ,,		4
Crumpsall Biscuit Works		171
Leicester Shoe ,,		1244
Enderby		156
Heckmondwike Shoe Works		169
,,	Currying Department	49
Durham Soap Works		16
Batley Woollen Mill		97
Leeds—Ready Mades		67
Steamship "Pioneer"		14
,,	"Unity"	15
,,	"Progress"	13
,,	"Federation"	18
,,	"Equity"	19
,,	"Liberty"	18
	Total	3758

Terms of Membership.

TRADE DEPARTMENT.

FOR the information of Societies and Companies not already purchasers from or members of this Society, we give below—(1) our requirements on opening new accounts; (2) particulars of trade terms; (3) terms and conditions of membership; and (4) a few of the advantages accruing from membership.

Any further information will gladly be given on application.

(1) NEW ACCOUNTS.

Societies desiring to open accounts are requested to furnish us with a copy each of their registered rules and latest balance sheet.

If a balance sheet has not been prepared, then the following information should be sent, viz., the number of members; amount of paid-up share capital; whether credit is allowed, and if so, to what extent; the amount of business done, or expected to be done per week.

(2) TRADE TERMS.

With the first order sufficient cash must be remitted to cover the estimated value of the goods ordered; afterwards payment must be made within seven days from date of invoice; all accounts are rendered strictly net.

Our business is conducted on these terms, with *registered* Co-operative Societies and Companies only.

Societies in process of formation and whose rules are not yet registered can be supplied with goods on payment of cash with each order.

(3) TERMS AND CONDITIONS OF MEMBERSHIP.

The following extracts from our Rules contain the principal features in connection with membership:—

(*a*) ADMISSION OF MEMBERS.—(Extract from Rule 5.)

The members of this society shall consist of such co-operative societies or companies (registered under the Industrial and Provident Societies Act, 1876, or under the Companies Acts, with limited liability, or under any law of the country where they are situate, whereby they acquire the right of trading as bodies corporate, with limited liability) as have been admitted by the general committee, and approved by a majority of delegates voting at a general meeting of the society. An application for shares shall be made by a resolution of some general or committee meeting of the society or company making the application, contained in writing and attested by the signatures of the secretary and three of its members. Every society or company making an application for shares shall state the number of its members, and take up not less than three £5 shares for every twenty members, or fractional part thereof, and agree to increase the number annually as its members increase, making the return of such increase at the time and in accordance with its return to the Registrar.

(*b*) CAPITAL—HOW PAID UP.—(Extract from Rule 9.)

The capital of this society shall be raised in shares of five pounds each, which shall be transferable only. Every society, on its admission, shall pay the sum of not less than one shilling on each share taken up. Each five pounds so paid shall constitute one fully paid-up share; but no dividend or interest shall be withdrawn by members until their shares are paid up. Any member may pay up shares in advance. After having received the consent of a special meeting, the whole or any part of the share capital may be called up by the general committee on giving notice to that effect.

(*c*) FORM OF APPLICATION FOR SHARES.

APPLICATION FOR SHARES.

Folio.....

The.....

Co-operative Society Limited.

TO THE DIRECTORS OF THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED, 1, BALLOON STREET, MANCHESTER.

Gentlemen,

Whereas, by a Resolution of the..... *Co-operative Society Limited, passed by the**..... *at a Meeting held on the*.....*day of*.....*it was resolved that the Society, which consists of*.....*Members, agree to take up*.....*Shares (being not less than Three Shares for every Twenty of our Members, or fractional part thereof) in the Co-operative Wholesale Society Limited, and annually to increase our Shares at the time and in accordance with our return to the Registrar, and to accept such Shares on the terms and conditions specified in your Rules.*

.....*189*

Attested by .....
.....
.....
Three Members.

.....*Secretary.*

* Members, Committee of Management, or Directors.

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(4) ADVANTAGES ACCRUING FROM MEMBERSHIP.

(*a*) The liability of each society member is limited to the amount of its shares.

(*b*) Members of this Society receive double the rate of dividend on purchases to non-members.

(*c*) Share capital receives interest after the rate of £5 per cent per annum.

(*d*) Each society composing the "Wholesale" may nominate one representative for every 500 of its members to represent it at the General or Branch Quarterly Meetings, or other Special Meetings which may be convened from time to time, and thus have a direct influence and voice in the control and management of its affairs. The nomination and election of its officers for General and Branch Committees, Auditors, and Scrutineers are effected by means of nomination and voting papers, which are sent to all Shareholding Societies to be filled up.

(*e*) A merely nominal payment secures membership, a deposit of 1s. per share upon application being only required; the dividend on purchases and interest on share capital being credited to share account until paid up.

Those societies not already federated with the "Wholesale" should at once join, and thus secure the advantages to themselves and the co-operative movement generally which its extensive and varied operations are intended to confer.

Business Notices.

ALL LETTERS TO BE ADDRESSED TO THE SOCIETY, AND NOT TO INDIVIDUALS.

WE would especially impress upon Societies' Managers and Secretaries the necessity of complying with the following regulations, in order to facilitate the despatch of Goods, to ensure promptitude in the answering and classification of letters, and to prevent disappointment.

LETTERS.

ALL letters must be addressed to the Society, and not to individuals.

Addressed Envelopes are supplied at cost price.

Communications for the following Departments, and relating to the subjects named, should always be made on separate forms or sheets of paper, viz. :—

(1) Bank and Cashier's Department.
(2) Accountant's Department.
(3) Grocery and Provision Department—Orders only.
(4) „ „ „ Application for Samples only.
(5) Drapery Department—Orders and Applications for Samples.
(6) Boot and Shoe Department—Orders and Applications for Samples.
(7) Woollen Cloth „ „ „ „
(8) Furnishing Department—Orders and Applications for Samples.
(9) Advices of Returns.
(10) Claims, delays, complaints, &c., for all Departments.

Although each of the above classifications requires a separate form, they should all be enclosed under one cover, and addressed to the Society.

At the Central Office, in Manchester alone, upwards of 3,000 Letters and Orders are received daily. It is evident that to effectually deal with these communications some division into departments is absolutely necessary.

These classifications have therefore been adopted, and Societies are asked to assist by seeing that their communications are despatched in accordance therewith, as when subjects included in more than one of these divisions are dealt with on one form, much labour is involved in re-writing the portions required to be separated.

ORDERS FOR GOODS.

The name of the Society and the Station to which the Goods are to be forwarded should be written at the head of each order.

ORDERS should contain the Price or Brand of each Article wanted.

Delays would often be prevented by noticing in which column in the Price Lists (Manchester, Newcastle, London, &c.) the Goods are quoted, and posting the Orders direct to the Central, or branches named, as the case requires.

As regards "Direct Quotations," notwithstanding that there are many instances where minimum quantities are fixed, orders are frequently received for less than the stipulated quantities. This necessitates correspondence, and in cases of urgency entails inconvenience to Societies, which would be obviated by carefully noticing the Price List when ordering.

It is desirable that the Forms we have specially prepared should be used in sending Orders.

1. Grocery, Drapery, Woollens, and Furnishing Department.
2. Tailoring (Bespoke), with instructions for measurement.
3. Boot and Shoe Department.
4. „ „ „ (Bespoke), with instructions for measurement.

Books containing 50 Forms, with Duplicates, will be sent free on application.

Orders for each Department should be made out on separate forms.

CONSIGNMENT OF GOODS.

Whenever delays occur in the delivery of Goods, Societies will please communicate with the carrier at their end, in addition to informing us.

To prevent any misunderstanding as to who is responsible for the safe delivery of Goods, we would state that when Goods are Carriage Paid we undertake their safe delivery; but when the Carriage is Not Paid, the Carrier is responsible to the Consignees, who, before taking delivery of any Goods, should carefully examine the same, and at once claim for any loss or damage sustained in transit.

EMPTIES.

Empty packages should be returned carefully packed, and fully and correctly consigned.

Each package should have a *label or direction card attached, stating the contents, the name of the Society forwarding them, and the name and address of their destination.*

Empties should be returned direct to the manufacturer from whom the Goods were sent. When returned to Manchester or the Branches, additional expense and trouble are incurred in re-consigning them to their proper destination.

A few manufacturers pay carriage on returned empties; where this is done Societies will consign carriage forward, in all other cases carriage should be paid. A list of firms who pay carriage may be obtained on application at the Central Offices.

In all cases an advice giving full particulars of the empties returned (viz., the kind, the quantity, the numbers, the price charged, and reference to invoice where charged) should be immediately posted to us, as unless this is done our rule is not to allow credit for them.

We have a book, which we send free on application, containing 50 forms, with duplicates, specially prepared for this purpose, which Societies are recommended to use.

The importance of carrying out these instructions will be seen when Societies are informed that the Railway Companies seldom make deliveries of empties until they have a complete load, and under such circumstances it is almost impossible to ascertain from what Societies they have been received, unless full particulars are given.

In many cases Societies do not fully carry out these instructions, consequently we are continually receiving empty packages which we are not able to credit because we do not know from whom they have been returned. This is a loss which we are desirous Societies should not incur; we therefore point it out to them so that the necessary precautions may be taken to avoid it.

GOODS CONSIGNED AS EMPTIES.

We cannot hold ourselves responsible for any Goods that may be returned consigned as empties, as any claim made on the Railway Companies for missing Goods under such circumstances would not be entertained.

STATEMENTS OF TRADE ACCOUNTS.

Weekly Statements

Are sent out to all Societies doing business with us, showing Total of Goods Invoiced, Cash Received, and Allowances made during the week, and Balance, if any, at the week end.

These statements afford a great check on Societies' books, and Secretaries are requested to compare each one as received with their books, and to report to us particulars in case of any discrepancy.

Quarterly Statements

Are issued immediately after our Books are made up for the Quarter.

They are in form similar to the Weekly Statements, and must be returned, duly certified if correct, to our Auditors, who require them as an independent check as to the correctness of our accounts.

We rely upon Societies giving prompt attention to these statements, as the early issue of our Balance Sheets depends to an extent on their immediate return.

In case of any discrepancy, details should be at once given or applied for, but if correct, the Statement should be forthwith signed and returned to the Auditors, in the envelope sent out for that purpose.

SHARE AND LOAN PASS BOOKS.

These should be sent to the Head Office (1, Balloon Street, Manchester) *every* Quarter, viz., in the First Week of March, June, September, and December, for the purpose of having the previous quarter's Interest and Dividend entered therein. Societies requiring information respecting the amount of their Share or Loan Capital are requested to send their Pass Books for the amount to be filled in, instead of sending for Statements.

When Shares are paid up the Share Book need not again be sent until a further allotment is made.

SOCIETIES' BALANCE SHEETS.

We especially desire those Societies who have not already done so to send us a copy of their last Balance Sheet, stating on it the number of their Members; also, a copy of their rules.

Trade Department.

CASH ARRANGEMENTS.

We beg to call the attention of Societies to the arrangements specified below, which will give facility and security when making remittances to this Society:—

1. **All cash must be addressed to the society only,** and not to individuals, *nor to the committee or auditors.*

2. **CHEQUES** and **DRAFTS** to be made payable to the CO-OPERATIVE WHOLESALE SOCIETY LIMITED. Post-office orders must be made payable to ABRAHAM GREENWOOD. Drafts drawn in favour of this society must be made payable on demand; other drafts when remitted to us must have reached maturity. All drafts, if possible, should be made payable either at London or Manchester.

3. Societies are respectfully requested, when drawing cheques in our favour, to do so in full, viz., Co-operative Wholesale Society Limited, without any abbreviation or variation whatever.

4. In forwarding half notes societies should state whether they are first or second halves; the latter half notes should be forwarded immediately on receipt of our acknowledgment of the first. Societies not receiving acknowledgment for first or second half notes in due course of post, will oblige by calling attention to the omission.

5. Remittances can be made by societies free of charge through any of the branches or correspondents of the Manchester and County Bank, London and County Bank, and the National Provincial Bank of England.

6. Through the Manchester and Liverpool District Bank or its branches, at a charge of 2s. per £100. For remittances through the Union Bank of Manchester, the Lancashire and Yorkshire Bank, or any of their branches, charges will be made known on application to the society.

7. **Care should be taken to advise immediately when a remittance is made to us, stating the amount and the name and place of the bank or branches through which the remittance is made.**

8. Remittances made through a bank in all cases should be done in the name of the society sending cash to us, and not in the name of a person.

9. All charges according to these arrangements for the remittance of cash will, in the first instance, be paid by this society, and afterwards debited to societies availing themselves of these facilities for paying cash to us.

10. Societies would greatly oblige, and thereby facilitate the business of this society, if they will, when advising cash remittances, or any matter relating to payment of cash, do so on a separate sheet of paper.

11. LOANS, WITHDRAWAL OF.—Societies, when requiring to withdraw their loans, are respectfully requested to ***apply to the Head Office, Manchester,*** for an official form, which is provided for and supplied to societies for the purpose of enabling them to withdraw loans and to state definitely the amount of loan they wish to withdraw. Societies will please note this special request.

Bank Department.

CURRENT ACCOUNTS

OPENED ON THE PLAN USUALLY ADOPTED BY OTHER BANKERS.

CUSTOMERS keeping accounts with the Bank may have moneys paid to their credit free of charge, at the

HEAD OFFICES,

1, BALLOON STREET, MANCHESTER,

AND AT

THE BRANCHES,

WATERLOO STREET, NEWCASTLE-ON-TYNE,

AND

HOOPER SQUARE, LEMAN STREET, WHITECHAPEL, LONDON, E.

CORRESPONDENTS:

THE PIONEERS' SOCIETY, TOAD LANE, ROCHDALE;

THE INDUSTRIAL SOCIETY, SCHOOL STREET, OVER DARWEN;

THE CO-OPERATIVE SOCIETY, HIGH STREET, LEICESTER.

CORRESPONDENTS OF THE FOLLOWING BANKS:

MANCHESTER AND COUNTY BANK,

LONDON AND COUNTY BANK,

NATIONAL PROVINCIAL BANK OF ENGLAND,

AND ALSO TO THE

LANCASHIRE AND YORKSHIRE BANK,

UNION BANK OF MANCHESTER, AND UNION BANK OF SCOTLAND LIMITED,

ON APPLICATION AS TO TERMS, ETC.

Grocery and Provision Departments.

A COMPLETE PRICE LIST of the goods dealt in is issued weekly, the prices being fixed for the day of issue only. These Weekly Lists, which are sent to Co-operative Societies with whom we do business, contain reports and opinions as to the state of the markets, as regards some of the principal articles.

The reports are intended for, and calculated to be of service to, Committees and Managers of Societies, in pointing out the tendency of the markets, and when to buy to advantage.

The following is a brief *résumé* of the chief commodities, and how the "Wholesale" is circumstanced in relation thereto:—

BUTTER AND EGGS—IRISH.

THE arrangements in force for conducting this portion of the business are remarkably well adapted for supplying the same on the most favourable terms.

There are six buyers, attending markets at Cork, Limerick, Kilmallock, Waterford, Tralee, and Armagh. These buyers are gentlemen of the first experience in the trade, and are under the immediate and direct control of the Society—not being merely employed as agents or buyers on commission.

The buyers, although taking up their residences at the places named, attend all the best and noted markets within a radius of twenty or thirty miles, and thus it will be seen that the area covered by their operations embraces a great proportion of the south of Ireland, and some of the most fertile districts of that country.

This Society is by far the most extensive purchaser and shipper of Irish Butter.

BUTTER AND EGGS—DANISH.

THE same remarks may be made in this respect as in the case of Irish Butter and Eggs. We have our own buyer stationed at Copenhagen, and he purchases direct from farmers who are considered the best producers in both Denmark and Sweden, and contracts with them for a weekly supply of all they make.

Before shipment, all goods are carefully examined by our representative.

Societies should encourage this Branch by giving us weekly orders for shipment direct, and thus save the cost of warehousing and of carriage from Manchester.

BUTTER—KIEL, AND GERMAN EGGS.

OUR arrangements for the purchase of these are similar to those at Copenhagen.

Our own buyer is located at Hamburg, and buys first-hand from the farmers and producers.

Our ready-money system of doing business commands the best terms, and enables us to do a very extensive and satisfactory trade in these articles.

BUTTER AND EGGS—FRENCH.

SUPPLIES of these are obtained fresh weekly, and are carefully selected for the Society, by competent and experienced men, from the best dairies and districts in France.

AMERICAN BUTTER, CHEESE, BACON, HAMS, LARD, FLOUR, APPLES, &c., &c.—NEW YORK BRANCH.

Two buyers are located at New York, whose duty it is to purchase and export the articles sold by the Society which are grown and manufactured in the United States and Canada.

The business done by the Society, and the Capital always at its command, enables its representatives to enter the markets in an independent manner, and places them in a pre-eminent position to exact terms of the first order. These conditions, and the consequent absence of the intermediate dealers, qualify the Society to transfer the goods from where they are produced to the consumer with the least possible addition to the cost.

CHESHIRE CHEESE.

THE Society's buyers visit the best dairies and farms in Cheshire where this is made, and purchase it from the farmers on the spot.

YEAST.

THIS is imported by the Society direct from the best distillers at Schiedam, Hamburg, and France. It is received in the port of Hull twice in each week—*i.e.*, Mondays and Thursdays—and distributed from there to the Society's customers.

SUGAR.

THE large purchases which the Society is able to make, place it in the best position for securing the utmost advantages from the refiners.

In addition to this, the Society's own buyers are in the centre of operations in Liverpool, London, Greenock, and New York, and are able to obtain information at first hand.

There is a telephone connecting its Liverpool offices with the Central establishment at Manchester, and the buyer in Liverpool is thus in constant telephonic communication with the Central buyer at Manchester, who, being in receipt of the latest and most reliable reports, is enabled to decide which is the most favourable time for making purchases.

Demeraras and other Raws are sampled on arrival, and the most suitable lots selected.

FLOUR, GRAIN, &c.

THE finest brands of Hungarian Flours are bought direct from the millers in Hungary. German and Dutch Flours are purchased by our own buyers, situated at Hamburg and Copenhagen respectively. German Flour is imported by us in our own steamers.

The Society's buyers in New York make very extensive purchases of Flour, direct from the millers, in both the United States and Canada.

Grain is bought in large quantities, "to arrive," and Meal of all kinds from the mills direct.

DRIED FRUIT.

OUR Dried Fruit buyer goes annually to Greece and Turkey at the season when the fruits are being gathered, and visits the vineyards where the fruits are drying, in order to select the Samples of Currants, Sultanas, and Figs most suitable for Co-operative Societies. These are bought direct from the producer, thereby saving the middlemen's profits, and we get a better selection than could otherwise be obtained.

POTATOES, ONIONS, APPLES, &c.

THERE is a special buyer for these goods, who travels over the districts known to produce the best sorts, and they are bought direct from the farmers when it can be done with advantage. Our buyer also regularly attends the Liverpool Green Fruit Auctions.

Purchases to a very large extent are also made in France, Belgium, and Germany, and the goods are imported to Goole and Garston by the Society's own steamers, which ply regularly between Calais and Goole and Hamburg and Goole on the East, and Rouen and Garston on the West Coast.

BISCUITS, SWEETS, AND DRY SOAPS.

THESE goods are manufactured by the Society at their Works, Crumpsall, near Manchester. When impartially judged, the quality compares most favourably indeed with similar articles made by other houses of older standing, and devoted to the special manufacture for a long period.

SUNDRIES.

SOME of the other articles in which the Society deals largely are—Preserved Meats, Beef, Mutton, Fish, Salmon, Sardines, Lobsters, and Tinned Fruits.

Preserves and Marmalades; Rice, Sago, and Tapioca; Soaps, Soda, Seeds, Starch, and Blues; Syrup and Treacle; Tobacco and Snuffs.

Mustard, Matches, Ginger, Pepper, and Spices; Eggs; Cocoas and Chicory; Candles.

Candied Peels; Burning Oils, Hair and Scented Oils; Black Lead, Blacking, Baking Powder, Oatmeal, Paper and Paper Bags, Patent Medicines, Pickles, Sauces, &c., &c., &c.

Tea, Coffee, and Cocoa Department,

LEMAN STREET, LONDON, E.

We have a buyer on the London Market whose exclusive duty it is to select and purchase Teas, Coffees, and Cocoas direct from the Importers.

The excellence of this arrangement, whether viewed from an economical point, or from that of enabling us to efficiently supply Societies with all the numerous varieties and qualities they may desire, is too apparent to need illustration.

Our unlimited command of money and unequalled organisation places us in a position for doing this trade superior to that of any other house.

ASSAM AND OTHER INDIAN TEAS.

These are made a special study. Year by year they are increasing in favour with the public; and their greater pungency and strength, as compared with China Teas, are likely to make them still further popular.

CEYLON TEAS.

The most enterprising of the planters in the Island of Ceylon have turned their attention to growing Tea on their estates, with the most gratifying results.

The quality produced supplies a need that has been most urgently felt, viz., Tea possessing the flavour of China Tea without its weakness, and the fulness of Indian Tea without its astringency.

These Teas are rapidly increasing in favour, and the consumption of 1890 shows a very large excess over 1889.

CHINA TEAS.

Many connoisseurs in Tea are to be found who still enthusiastically champion the merits of these growths. They contend that if they lack the strength and other features of Indian Teas, they possess a peculiarly delicate flavour that to the educated palate is exquisitely grateful. Still the consumption is rapidly decreasing every year, and at the present rate there will, in a few years, be very little Chinese Tea consumed in this country.

RED LEAF CONGOUS.

THE crop of 1890-91, considered on the whole, is not quite so good as that of last year, with the exception of SEU MOOS and LAPSENG SOUCHONGS, which are better than they have been for some seasons past.

SARYUNHS are good, useful Teas, about equal to 1889-90.

TONG FONG TONGS are not so well made as last season, with poor liquor.

PANYONGS lack the quality of last year's pickings, but are much stronger in cup.

PAKLUMS and PAKLINGS are very indifferent.

SUEY KUTS represent a fair average yield.

SEU MOOS and SOUCHONGS are considerably superior to last season's crop both in leaf and liquor, though the latter are in rather short supply.

The quantity shipped will again be very much less than last year.

BLACK LEAF CONGOUS.

THE shipments from HANKOW and SHANGHAI are a great improvement on last year; though perhaps not exceptionally fine, yet the bulk are thick, serviceable Teas.

KEEMUNS and KINTUCKS are well made, with better cup than the past season.

NINGCHOWS are better, with very pure liquors; the finest kinds having again gone chiefly on Russian account, has caused great scarcity here.

OOPACKS are about equal to last season.

OONFAS and TOWYUENS are better in leaf, and not so tarry, the growers having had finer weather for plucking than last year.

The shipments show a falling off of about 15,000,000lbs.

SCENTED TEAS.

THIS is a very fair crop, especially for Medium and Fine grades, which are well scented and comparatively free from dust.

GREEN TEAS.

THE consumption of this class is still decreasing in England.

MOYUNE kinds do not show such fine quality as last season.

FICHOWS are plentiful, but very poor.

PING SUEYS compare well with last season, but are in short supply.

BLENDED TEAS.

THE art of blending is now carried to a high pitch of perfection, and to work it successfully requires not only a knowledge of the true affinities of the various growths of India, China, and Ceylon, acquired by a long apprenticeship to tea tasting, but ample capital, large premises, suitable machinery, and a competent staff of well-instructed employés. These have been provided for this section of our Tea and Coffee business.

Extreme care is taken to suit all tastes and districts, and everything that can be thought of to make our arrangements, if possible, still more perfect, will be done.

BULK MIXED.

THESE are packed in cads, half chests, and chests. The saving of capital and labour, the greater efficiency and satisfaction resulting from scientific blending, and the numerous grades supplied by us, is causing a largely-increased demand, and is making them very popular.

CHINA PACKET TEAS.

IN addition to the excellence of the blending, we are making extra efforts to turn our packets out of a design and appearance that shall command attention and attract the consumer.

Everyone will admit the superiority in appearance of a handsome packet to the ordinary parcel turned out by the shopman when the Tea is weighed over the counter.

By careful attention to the economy of labour, we are able to supply packets, in large and beautiful variety, at a cost less even than would be incurred if made up in the ordinary way in the Store.

INDIAN PACKET TEAS.

As we have mentioned before, Indian Teas are rapidly increasing in public favour, and, instead of being mixed with China Teas, are now being extensively used by themselves, so to meet these requirements we have introduced two Indian Packets, one a pure Souchong, and the other a pure Pekoe blend.

CEYLON PACKET TEA.

As these Teas are rapidly and deservedly growing in public favour, on account of their strong, rich, and delicious flavour, we have introduced two Ceylon Packet Teas. We warn our readers that a great many mixtures are offered as Pure Ceylon Teas in leaden packets, and represented as being imported direct from Ceylon in this form. Teas offered in such packets should be avoided, as the finest Ceylon Teas are seldom so imported.

COFFEES.

THE EAST INDIA CROP.—Quality about the same as last year—quantity 4,000 tons less.

The production of CEYLON again shows a falling off, showing about 2,000 tons less than last year, and the quality better.

COSTA RICA CROPS smaller, and quality about average.

No extension is going on in INDIA.

RIO AND SANTOS CROP good; quality only fair, and is small in the berry.

From JAVA only a fair crop is expected; quantity smaller than last year, quality not so good.

RAW COFFEES.

Our arrangements for the supply of all kinds in use in the home market are as efficient as they can be possibly made.

Samples, both in the raw and roasted state, are sent with all quotations.

ROASTED COFFEES.

We have now roasting machinery both in London and Manchester, fitted with all the latest improvements.

These enable us to supply the freshly-roasted article in the most expeditious manner; and great care is taken to finish off the berry to suit the particular requirements of customers.

PACKED COFFEE.

Great quantities of rubbish have been, and are being, sold under different fancy names. The extraordinary proportions the demand for these articles has assumed have led the Government to impose a special tax on all mixtures, so as to compensate for the loss of revenue on Coffee caused by their consumption.

This will now put the honest trader on a fair footing, and with the great advantage to the consumer that he can make sure of getting a really good and pure article at a reasonable price.

We therefore now sell Coffees of different grades and qualities, both pure and mixed with Chicory, at prices which will be sure to command a good sale.

Our excellent machinery, our economical arrangements, the large scale of our operations, and the well-known beneficial results of division of labour, will enable us to supply Societies cheaper and better than it is possible for them to do for themselves.

COCOA AND CHOCOLATE.

In order to give Societies the opportunity of getting their supplies at the lowest possible cost, we have commenced the production of the various kinds of Cocoa and Chocolate most in demand.

The greatest care is exercised in the manufacture, ingredients of the best quality only being used. The works are fitted with efficient and modern machinery. The Society is thus in a position to manufacture all classes of Cocoas and Chocolates showing better quality and value than any others in the market.

Special attention is drawn to the following:—

PURE CONCENTRATED EXTRACT IN TINS.

This Cocoa is similar in character to the best of the well-known Dutch Cocoas, but British Co-operators will, of course, prefer to consume Cocoa produced by British Co-operators, rather than that of any foreign manufacturer. It possesses great strength, combined with exquisite flavour, and at the same time is most economical in use.

PURE CONCENTRATED ESSENCE IN PACKETS.

A PREPARATION of the finest selected Cocoa nuts from which the greater part of the fat has been extracted; *contains no sugar and no starch.* With this powder can be made a cup of Cocoa thin in body, like Tea and Coffee, but with far more nutritive qualities than either of these.

PREPARED BREAKFAST COCOA,

MADE of the finest grown nuts and mixed with such other ingredients of the best quality as are necessary to produce a high-class powder, soluble and easy of digestion.

HOMŒOPATHIC COCOA.

WE make two qualities, each of which will be found not inferior to the Cocoas usually sold by this name.

PEARL COCOA.

GREAT care is taken to produce this popular Cocoa in the best form, and the constantly increasing sales show our efforts to have been successful.

ROCK CHOCOLATE.

A PREPARATION of finest Nibs and best Loaf Sugar; specially recommended.

The following also are made, each in various qualities:—

ROCK COCOA, FLAKE, COCOA NIBS, &c.

EATING CHOCOLATE.

WE are now turning out large quantities of this article in various forms of ½d., 1d., and 2d. Cakes, also Drops, &c.

Creams and Cream Cakes, of which we have just commenced the manufacture, also promise to have a large sale.

Societies who have not yet tried these are strongly recommended to do so, for, whilst being very wholesome and nutritious both for children and adults, the sale will be found to be a profitable source of revenue, which Societies may as well secure for themselves as leave to the neighbouring confectioner.

Drapery Department.

CENTRAL SALEROOM AND WAREHOUSE:

DANTZIC STREET, MANCHESTER.

NEWCASTLE BRANCH SALEROOM AND WAREHOUSE:

WATERLOO STREET, NEWCASTLE-ON-TYNE.

LONDON BRANCH SALEROOM AND WAREHOUSE:

LEMAN STREET, LONDON, E.

THE especial attention of Societies is called to the above Department, as we feel sure, if they will only give us a fair comparison, they will find we can do as well for them as any other house in the trade. The Stock consists of—

HOSIERY

OF EVERY KIND AND MAKE.

Wools, Worsted and Yarns (by the best spinners), Linen and Paper Fronts and Collars, Cuffs; Kid, Wool, Lisle, and Silk Gloves; Wool, Union, and Oxford Shirts; Duck Jackets; Men's and Boys' Hats and Caps.

HABERDASHERY AND SMALLWARES

OF EVERY DESCRIPTION AND MAKE.

Silk and Velvet Buttons, Trimmings, Ribbon Velvets, &c.

MILLINERY DEPARTMENT.

We beg to call especial attention to this Department, and would ask your hearty support. The Stock is well assorted, and consists of Felt and Straw Hats, Plain and Fancy Straw Bonnets, in all the newest shapes; Ribbons in

Silk, Satin, and Velvet, all shades; Feathers in Ostrich, Fancy Wings, Birds, Ospreys, &c.; French and English Flowers, rich new shades, mounted and unmounted; Silk and Cotton Laces, Spot Nets, Embroidered Crapes, and Leises; Ornaments, newest designs in Jet, Steel, &c.; Silks, Velvets, and Plushes; Steel, Jet, and Gold Millinery Trimmings, newest styles; Trimmed Millinery, Black and Coloured; Children's Millinery, in Hoods, Hats, and Bonnets.

MANTLES.

We keep a well-assorted Stock, from the best English, French, and German manufacturers.

FANCY GOODS.

Ladies' and Gents' Scarfs, Ribbons, Laces, Stays, Corsets; Umbrellas in Silk, Alpaca, Gloria, Dagmar, and Satin.

DRESS DEPARTMENT.

Black and Coloured Merinos, French Twills, Sateens, Scotch and German Plaids, Black and Coloured Silks and Velvets.

Scotch and Yorkshire Shawls, Wool Handkerchiefs, Felt and other Skirts, &c.

Lace, Leno, and Harness Curtains and Blinds, Wool, Damask, &c.

MANCHESTER DEPARTMENT.

This Department comprises every kind of Scotch, Irish, and Barnsley Linens; Bleached Calicoes, Sheets, and Sheetings; Oxford, Harvard, and other Cotton Shirtings; Silesias, and every class of Dyed and Printed Linings; Prints, Cretonnes, Damasks, Window Hollands, Table Covers, Toilet Quilts, Toilet Covers, Table Baizes, Leathers, &c., &c.

The Stocks are bought from the best manufacturers only, and the finish in all cases is carefully attended to. All Goods are sold under their correct quality and numbers, and the widths and lengths guaranteed. These facts should always be considered when comparing the "Wholesale's" prices with those of other firms.

GREY DEPARTMENT.

Wigans, Mexicans, and Twills in various widths and qualities; Yorkshire, Lancashire, and Saxony Flannels; Bath, Bury, and Twill Blankets; Bleached and Grey Sheets; Alhambras of every kind and in all sizes; Union and Wool Shirtings, Linseys, Kerseys, Lambskins, Down Quilts, &c.

Woollen Department,

DANTZIC STREET, MANCHESTER.

WOOLLENS.

In this Department there is always a fine selection of the newest styles in

WOOLLEN AND WORSTED COATINGS, TROUSERINGS, AND SUITINGS

of the best quality and value, all of which are made at our own mills.

READY-MADES

IN MEN'S, YOUTHS', AND BOYS' GARMENTS,

of every description and price.

TRIMMINGS.

BLACK AND COLOURED SILESIAS, STRIPED SILESIAS AND SATEENS,

in all colours and designs.

BUCKRAMS, CANVASES, JEANS, POCKETINGS,

BLACK AND COLOURED ITALIANS AND SERGES

at all prices.

For choice quality and value this department cannot be beaten by any house in the trade, and merits the support of every society.

Furnishing Department,

HOLGATE STREET, MANCHESTER.

ILLUSTRATED CATALOGUE AND PRICE LIST

SENT FREE OF CHARGE TO ANY SOCIETY ON APPLICATION.

THE STOCK IN THIS DEPARTMENT

Consists of Sideboards, Suites, Bassinettes, Tables, Chairs, Stools, Wardrobes, Bookcases, Chiffonniers, Chests of Drawers, Toilet and Pier Glasses, Sofas, Couches, Bedsteads (in wood or iron), Hat Stands, &c.

HARDWARE DEPARTMENT.

Buckets, Saucepans, Kettles, Coal Scuttles, Fenders, Fire Irons, Shovels, Umbrella Stands, Stair Rods, Tin Washups, Breakfast Cans, Milk Cans, Lading Cans, Bread Tins, Dripping Tins, Bellows, Washing and Wringing Machines, Brushes, Cutlery, &c., &c.

CARPET DEPARTMENT.

Kidderminster, Brussels, Tapestry, and Hemp Carpets, Tapestry, Brussels, Wool, Hemp, and Berlin Stair, Cocoa Mats, Cocoa Matting, Twine Matting, Axminster, List, Beam, and Skin Rugs and Mats, Oil Cloth, Painted Back Cloths, Hessian Back Cloths, Linoleums, &c., &c.

FANCY DEPARTMENT.

Hair, Clothes, Tooth, and Nail Brushes, Combs, Satchels, School Bags, Travelling Bags, Albums, Watches, Alberts, Guards, Spectacles, &c., &c.

MACHINERY, SHOP FITTINGS, &c.

We supply Messrs. Crossley Brothers' "Otto" Gas Engines, and all other kinds of Machinery and Shop Fittings required by Societies, and are also in a good position for supplying Safes, &c.

Crockery Department,

LONGTON.

OUR Depôt in the Potteries is stocked with a choice selection of goods of the best manufacture suitable for the requirements of societies. At the same time we beg to call your attention to the following advantages we possess over manufacturers:—

First.—We can supply crates of mixed goods of all kinds—EARTHENWARE, CHINA, JET, ROCKINGHAM, GLASS, YELLOW and BROWN WARE.

Secondly.—We can supply all general articles and goods from our list promptly, which is what manufacturers cannot continuously do, as they are certain to run out of stock of some kind very often.

Thirdly.—We can supply very small quantities of each article—which, with the above-mentioned promptitude, will enable you to keep a very small stock, and place it within the power of the smallest store to keep crockery to advantage.

Fourthly.—By combining our resources of capital with the services of a buyer on the spot we are able to purchase goods from the best makers, and supply them on as good terms as can be got by dealing direct with the manufacturers, and in greater variety.

Fifthly.—In dealing direct there is generally a heavy charge for crates, which will be avoided, as we find crates and credit on return as per page 6 in list.

We have added Sanitary Goods, such as Closets, Lavatory Basins, &c., &c., and can strongly recommend these for price and quality.

We trust that these considerations will induce every society to add crockery to their other business; and as we keep a number of crates on hand ready packed, consisting of China, Earthenware, Rockingham, and Jet Teapots, &c., suitable for beginning in this branch of trade, we shall be pleased to forward one immediately to any society which will intimate their willingness to give it a trial. For assortment of crates, &c., see our Price List, free to any society on application.

N.B.—All orders to be sent direct to Longton.

Crumpsall Works.

MANUFACTURERS

OF

Biscuits, Sweets, Jam and Marmalade,

DRY SOAP POWDER, &c.

WAREHOUSES:

BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E.;

AND

CHRISTMAS STREET, BRISTOL;

Where all Orders must be sent.

TO supply some of the requirements of the Retail Stores, this Society established these Works eighteen years ago. By the rules of the Society the custom of the private trader is refused, and none but registered Co-operative Societies are supplied. The Retail Stores, members of the Wholesale Society, are the proprietors of these Works, and, as such, the exclusion of private trade is a regulation made by them. We have, therefore, a just claim upon the Stores that they should support their own Works, whilst we acknowledge that they have a claim upon us to supply a pure and serviceable article, as good and as cheap, of its kind and quality, as can be had elsewhere.

THE BISCUITS ARE MADE OF THE PUREST MATERIALS,

Nearly all the flour used being of co-operative manufacture. The machinery employed is of the latest style and most perfect character. The Biscuits produced are such that we confidently invite comparison, and urgently solicit all Co-operative Societies to give them a trial.

IN THE MAKING OF SWEETS

We boil the best of sugar (all cane); employ the best skill; use only vegetable colouring matter, all of which is perfectly harmless; and we can confidently challenge analysis. Our Sweets need only be tried to be approved.

LOZENGES.

Our machinery is of the newest and most approved construction for the making of Lozenges in all the varieties mostly in request. The difference in value between one Lozenge and another depends almost entirely on the quantity, strength, purity, and delicacy of the flavouring used. In these particulars we aim to excel, and we invite comparison. We trust our friends will give this department a trial, and have no doubt the article produced will bear comparison with the productions of the best makers.

JAMS, JELLIES, AND MARMALADE

Are made of the best fruit procurable, and Cane Sugar is used exclusively.

CITRATE OF MAGNESIA, AND SHERBET, OR LEMON KALI,

Are sometimes pressed by makers upon the attention of the Stores as "a special cheap quality." They can, however, be made "cheap" only by keeping out the Acids, which are expensive, and putting in more sugar. This sort of cheapness makes the article more agreeable to some tastes, but certainly much less useful and less costly. We aim at making the C.W.S. Citrate and Sherbet the best value.

"WHEATSHEAF" BAKING POWDER,

In 1oz. and 2oz. Packets,

Has been tested in practical use with that of the best makers, and with favourable results.

C.W.S. "WHEATSHEAF" BLACK LEAD,

In 1oz. Oblong Blocks, and 1oz. and 2oz. Round Blocks.

We Block the very best of Lead, and our produce cannot be excelled in the brilliancy and polish it imparts. Our Loose Black Lead, in 1oz. and 2oz. packets, we can confidently recommend.

DRY SOAP.

In the manufacture of Dry Soap it is usual to introduce cheap ingredients which have no cleansing properties, and only serve to increase the bulk and the weight, thus catching the unwary by giving them for their money a large packet of small value. We can assure our friends that we use no ingredients which have not valuable detergent or cleansing properties, and our Dry Soap will bear comparison with that of the best makers. This article has recently been subjected to the test of analysis by the Manchester City Analyst, and his figures show that for detergent value or cleansing power the C.W.S. Dry Soap Powder stands in front when compared with the analysis of three other samples from makers of highest repute and longest standing.

SOFT SOAP.

The remarks above on Dry Soap are equally applicable in every way to Soft Soap.

West End Shoe Works,

LEICESTER.

WAREHOUSES:

BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E.; AND CHRISTMAS STREET, BRISTOL.

SALEROOMS:

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN,

NORTHAMPTON.

ORDERS should be sent either direct to the Central Office, 1, Balloon Street, Manchester, or to the Branch Warehouses, **Waterloo Street, Newcastle,** and Leman Street, London.

To avoid delay, orders **for** Bespoke or Measured Work **must** be sent direct to the **Works** at **Leicester.**

WE MANUFACTURE MEN'S AND BOYS' CALF BALMORALS,
KIP BALMORALS, WATERTIGHTS,
EXTRA STRONG COWHIDE SHOOTERS,
OPEN TAB BALMORALS, FRENCH CALF AND CRUPP BALMORALS,
AND ELASTIC SIDE BOOTS.

MEN'S CALF PATENT DRESS BOOTS, KIP DERBYS,
CALF PATENT OXFORD AND DERBY SHOES,
ARE MADE IN
Riveted, Wood Pegged, Hand Sewn, Combination,
Machine Sewn, Standard Screwed,
and Fair Stitched.

LADIES' AND MISSES' BUTTON BOOTS, LACE BOOTS,
ELASTIC SIDE BOOTS,
MOCK BUTTON BOOTS,
CALF KID, DONGOLA, DULL AND BRIGHT,
GLOVE KID, GLACE KID, MOCK KID,
AND ALL KINDS OF COLOURED SHOES.

LADIES' AND MISSES'
CALF KID,
GLOVE KID,
GLACE KID,
SEAL LEVANT,
KIP LEVANT,
LEVANT MOROCCO,
ENGLISH AND FRENCH CALF,
MOCK GLOVE, FRENCH SHEEP, GERMAN CRUPP,
AND OTHER MATERIALS.

CHILDREN'S
BOOTS AND SHOES
IN ALL STYLES.

LADIES'
CASHMERE, BUTTON,
AND
SPRING-SIDE HOUSE BOOTS,
From 2s. 9d. per Pair.

WE are also making the following
SPECIALITIES IN GENTLEMEN'S BOOTS :—
CO-OPERATOR. FEDERATIVE.
TIMELY.
JUBILEE. SERVICEABLE.
PROGRESS.

In our Illustrated List we give the numbers of those usually kept in stock at Manchester, as well as at the Branch Warehouses in Newcastle and London. Societies requiring any kind of Goods not mentioned in our *List*, we shall be glad to make for them upon receiving instructions.

Although there is a growing demand for Low-priced Goods, which we endeavour to meet, we have in no case departed from the principle which has been adhered to since the commencement of these Works—of always using material of known excellence, and discarding the use of all substitutes for honest leather. The continued and growing demand for our productions warrants us in stating that for quality and price they are equal, if not superior, to anything supplied by the general trade. In addition to the general trade, we are now making about three hundred pairs of Bespoke and Measured Work weekly, and every effort is made to supply these orders promptly ; but many delays, misfits, and mistakes would be avoided if societies would only follow our instructions for measurement. **A draft of the foot should in all cases be taken,** and sent with the correct measurement. Societies should use our Order Books specially arranged for this department, which are only 10d. each, and can be obtained at either the Central or Branch Warehouses. **Cut Soles** for Repairing purposes supplied in any quantity or quality. Price List and Samples sent on application.

Heckmondwike Boot & Shoe Works.

SALEROOMS AND WAREHOUSES:

BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E.

Orders must be addressed either to Central Office, or to the Branch Establishments at Newcastle or London.

THESE Works having been considerably enlarged, we are now in a position to double our production, and we appeal to societies to give us their support.

The Goods we make are MEN'S and YOUTHS' STRONG NAILED, suitable for miners, quarrymen, farm labourers, masons, joiners, railway servants, &c. We also make in MEN'S and BOYS' a quantity of MEDIUM STRENGTH with SMOOTH BOTTOMS, with nails driven up, suitable for a working boot in lighter occupations.

We also make WOMEN'S STRONG LACED MILL BOOTS. In the manufacture of our goods we pay special attention to the selection of material used for the inner sole, which is the foundation of a strong boot, and on which depends entirely the wear, and when re-soled and heeled gives the repairer a good foundation to work upon. This very important feature applies to the whole of the goods we make, from the lowest priced ones upwards.

We desire it to be fully understood that none of our manufactures contain paper or composition leather board, but solid leather; and therefore, if in some instances our prices are found to be somewhat higher than goods of similiar appearance, you may rely upon it the difference of the price is in the quality.

CURRYING DEPARTMENT.

The above Department is now in full working order, and we are able to supply societies with any of the following Goods:—

LEVANT HIDES.
" KIPS.
" KIP SHOULDERS.
" HORSE SHOULDERS.
" " BELLIES.

MEMEL HIDES.
" HIDE BUTTS.
" KIPS.
SATIN HIDES.
" HIDE SHOULDERS.

SATIN KIPS.
" KIP SHOULDERS.
WAXED HIDE BUTTS.
" KIP BUTTS.
" E. J. CALF.

Durham Soap Works,

GILESGATE.

SALEROOMS AND WAREHOUSES:

BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

LEMAN STREET, LONDON, E;

CHRISTMAS STREET, BRISTOL;

LEEDS, HUDDERSFIELD, NOTTINGHAM, BLACKBURN, AND NORTHAMPTON,

Where all Orders must be sent.

THESE Works were established October, 1874, to enable the Society to supply its members with a pure article. We can, without fear of contradiction, say that the Soap supplied from these Works is equal to any supplied by the best manufacturers, combining all the qualities of a substantial cleaning agency, and being manufactured from the very best raw material.

We supply the following qualities:

WHEATSHEAF PALE	WHITE WINDSOR
GOLDEN PALE	COLD WATER
FIRST ,,	BEST EXTRA PALE
SECOND ,,	X ,,
XX ,,	FINE ,,
GOLDEN WINDSOR	BEST MOTTLED
PALE ,,	SECOND ,,

HONEY SOAP, 1lb., ½lb., and ¼lb. Tablets.

ALMOND ,, ,, ,, ,, ,,

SPECIALITIES:—

CARBOLIC SOAP.	PARAFFIN SOAP.
CONGRESS SOAP (in Tablets).	"C.W.S. CLEANSER."
WHEATSHEAF TABLETS.	LILY SOAP.

ALL CARRIAGE PAID.

For prices, see Society's Weekly Price List. Samples will be sent on application.

We are convinced that a much larger trade might be done if societies would only give this Soap a fair trial. The Co-operative Societies in the Newcastle district, who obtain their supplies chiefly from this source, find the soap gives entire satisfaction to their members. We therefore ask societies to support their own production, instead of obtaining their supply from other makers, who have travellers ever on the road waiting upon store managers seeking to influence them to buy their soap, and not that of their own manufacture.

CO-OPERATORS, SUPPORT CO-OPERATIVE PRODUCTION.

Livingstone Mills,

BATLEY, YORKSHIRE.

WOOLLEN MANUFACTURERS.

SALEROOMS AND WAREHOUSES:

1, BALLOON STREET, MANCHESTER;

WATERLOO STREET, NEWCASTLE-ON-TYNE;

AND LEMAN STREET, LONDON, E.

Orders should be sent either direct to the Central Office, 1, Balloon Street, Manchester, or to the Branches, Waterloo Street, Newcastle, and Leman Street, London.

WOOLLENS AND WORSTEDS.

THE Productions of our Batley Mill are not to be surpassed in either Quality, Style, or Price.

We are now manufacturing some of the choicest patterns in

FANCY WORSTED TROUSERINGS AND TWEEDS.

Our INDIGO BLUE SERGES AND WOADED BLACK WORSTED COATINGS are so well known throughout the Stores as to need no further description.

Our demand during the past year has greatly exceeded our power of supply, and has necessitated extra provision being made to enable us to produce goods more quickly.

PATTERN CARDS WILL BE SENT ON APPLICATION.

CO-OPERATORS! Ask at your STORES for BATLEY CLOTHS.

See that you get them, and don't be persuaded to take any other.

Productive Societies

FOR WHICH THE

CO-OPERATIVE WHOLESALE SOCIETY ARE AGENTS.

The Agricultural and Horticultural Association Limited.

Reliable Farm and Garden Seeds; special Manures for Fruit, Vegetable, and Garden Crops.

The Airedale Manufacturing Society Limited.

Manufacturers of Black Alpaca Lustres, Black Brilliantines, Black and Coloured French Twills, Mohair Glacés, Black and Coloured Persian, Russel and Cable Cords, Wool Serges, Black Orleans, Black and Coloured Italians, Black and Coloured Figures, Mottles, Mixtures, Stripes, &c., &c.

The Coventry Co-operative Watch Manufacturing Society Limited.

The Watches supplied by this Society we can well recommend as being of uniform good quality, and it engages to keep them in good going order for twelve months from date of purchase. We trust that individuals, through their societies, will give us their orders, so that we may do a larger trade in this department. Watches, from £2. 10s. to £25 each.

The Dudley Nail Manufacturing Society Limited.

The Dudley Productive Co-operative Society Limited.

Manufacturers of all kinds of Galvanised Goods, Buckets, Nails, &c.

The Eccles Industrial Manufacturing Society Limited.

Manufacturers of Toilet, Alhambra, and Damask Quilts, by hand and power; also Twill Sheetings, all of the best quality, and in tastily-arranged patterns.

Having repeatedly compared the Quilts produced by the Eccles Manufacturing Society with the Quilts made by other firms, we are thoroughly satisfied that those made by them are equal, and, when cost is considered, superior, to those sold by other makers. All Toilet and Honeycomb Quilts sold by the Co-operative Wholesale Society are made by the Eccles Manufacturing Society, and all members, when purchasing, should ask for the Eccles Quilts, and insist upon having them.

The Hebden Bridge Fustian Manufacturing Society Limited.

Manufacturers of Cords, Moles, Velveteens, Imperials, Diagonals, Satteens, Twills, &c., in every variety and colour; Fustian Clothing, ready-made and to order. Samples and prices on application.

The Heckmondwike Manufacturing Society Limited.

Manufacturers of Carpets, Horse Cloths, Blankets, &c.

The Lancashire and Yorkshire Co-operative Productive Society Limited.

Manufacturers of Flannels, plain and coloured, of guaranteed purity and excellence of manufacture, combined with reasonable prices. Societies ordering sufficiently large may, if desired, have the goods finished to suit their special markets.

The Leek Silk Twist Manufacturing Company Limited.

The Leicester Elastic Web Manufacturing Society Limited.

The Leicester 2nd Hosiery Manufacturing Society Limited.

We are now their sole agents, and keep a stock of all classes of goods made by them.

The Midland Nail Makers' Association Limited.

The Paisley Manufacturing Society Limited.

Manufacturers of Saxony Wool Shawls and Plaids, in plain and fancy checks; Saxony Wool Handkerchiefs and Scarfs, Dress Tartans, and Twilled and Plain Wool Shirtings. A large variety of patterns to select from.

The Rochdale Pioneers' Society Limited.

Manufacturers of Tobacco, Snuffs, &c.

The Sheepshed Hosiery Manufacturing Society Limited.

The Sheffield Co-operative Cutlery Manufacturing Society Limited.

Regular Steam Service

BETWEEN

GARSTON (LIVERPOOL) & ROUEN.

OFFICES:

CENTRAL: BALLOON STREET, MANCHESTER.
LIVERPOOL: 7, VICTORIA STREET.
GARSTON: NEW DOCK. ROUEN: 2, RUE JEANNE D'ARC.

"UNITY"

OR OTHER STEAMER DESPATCHED FORTNIGHTLY.

EXTRA STEAMERS TO SUIT THE REQUIREMENTS OF THE TRADE.

Goods carried at through rates, with quick despatch, between Liverpool, Manchester, Birmingham, and North of England Towns, and Paris, Lyons, Beauvais, Lille, and North and East of France.

For Rates of Freight and other information, apply to the Society's offices, as above.

On the outward voyages from Garston, in addition to sundry goods, the shipments consist largely of caustic soda, bleaching powder, and other chemicals from Widnes and St. Helens district—machinery from Manchester and Bolton and neighbouring towns—American and East Indian cotton which has arrived at Liverpool and been ordered for shipment to Rouen, the principal seat of cotton industry in France. There are also considerable shipments of copper. On arrival of the goods at Garston they are taken directly alongside our steamers, in the railway wagons, and then by means of powerful hydraulic cranes they are transferred from the wagons to the hold of the steamers. By this means shippers may rely on the shipments being effected with prompt despatch, and we avoid the risk of damage which sometimes occurs when cartage is employed.

At Rouen the steamers are berthed in close proximity to the railway lines, so that goods can be landed from the steamers direct on to the railway wagons. Or when consignees order goods to be forwarded from Rouen by water, the river barges are loaded alongside the steamer, and these are towed by powerful steam tugs up the Seine to Paris. Providing no exceptional delay occurs, the transit up the river occupies little over two days.

On the return journey from Rouen the steamer's cargo principally consists of loaf sugar coming from Paris, also sugar in bags, chemicals, dye stuffs, flour, field seeds, metals, and besides there are sundry goods in cases, such as glassware, toys, haberdashery, and *articles de Paris*.

In fine weather the sea voyage between Garston and Rouen occupies about three days. No effort is spared to ensure the steamer being despatched punctually from each port on the appointed dates, and as by this means a regular service is maintained, we are favoured with a large traffic from general shippers.

Goole and Calais Line of Steamers.

CENTRAL OFFICES:

1. Balloon Street, Manchester.

GOOLE OFFICES:

Co-operative Wholesale Society, Goole.

CALAIS OFFICES:

Co-operative Wholesale Society, 5, Rue du Paradis, Calais.

WEEKLY SERVICE BETWEEN GOOLE & CALAIS.

The new powerful and fast steamships "PIONEER," "PROGRESS," or other steamer, will (weather and other casualties permitting) sail regularly between Goole and Calais, leaving Goole every **Wednesday** and Calais every **Saturday.** This line is in direct communication at Goole with the L. & Y. and N.E. Railway Companies, whose wagons can be loaded direct from the steamers, thereby ensuring despatch with the least risk of damage to the goods carried by the line.

The Aire and Calder Navigation Company run their canal boats alongside the Company's steamers, so that all who prefer their goods carried by canal can have them loaded direct into the Aire and Calder Company's boats and *vice versâ*.

At Calais the steamers are berthed near the Custom House and opposite the goods warehouse of the North of France Railway Company, where the goods can be stored waiting the arrival of the steamers.

The North of France Railway Company have a line of rails laid to the place where the steamers are berthed, so that goods entrusted to this line can be safely and quickly despatched to their destination. The Goole and Calais route is the best and cheapest between the great manufacturing centres of the North of England and those of the North of France; and shippers in those districts will find it to their advantage to give this line a trial.

Goods are carried at through rates from any part of the United Kingdom to the principal cities of France and the Continent.

For rates of freight and other information apply to the

CO-OPERATIVE WHOLESALE SOCIETY, 1, Balloon Street, Manchester;

CO-OPERATIVE WHOLESALE SOCIETY, Goole; or

CO-OPERATIVE WHOLESALE SOCIETY, 5, Rue du Paradis, Calais.

Goole & Hamburg Line of Steamers.

CENTRAL OFFICES: 1, BALLOON STREET, MANCHESTER.
GOOLE OFFICES: CO-OPERATIVE WHOLESALE SOCIETY, GOOLE.
HAMBURG OFFICES: MR. W. ZODER, AGENT, 3, STEINHOFT, HAMBURG.

REGULAR SERVICE BETWEEN

GOOLE AND HAMBURG.

The powerful and fast steamships "LIBERTY," "EQUITY," and "FEDERATION," or other Steamers, will (weather and other casualties permitting) sail regularly between Goole and Hamburg,

LEAVING EACH PORT TWICE A WEEK.

Extra Steamers to suit the requirements of the Trade.

This line is in direct communication at Goole with the L. & Y. & N.E. Railway Companies, whose wagons can be loaded direct from the steamer, without the risk or expense of cartage. This is of great importance to shippers, as it ensures a quick delivery of their goods in a clean and undamaged condition.

The Aire and Calder Navigation Company run their canal boats alongside the Company's steamers, so that all who prefer their goods carried by canal can have them loaded direct into the Aire and Calder Company's boats, and *vice versâ*.

At Hamburg the steamers are berthed alongside the warehouses of the Railway Company, where the goods can be stored waiting the arrival of the steamers.

GOODS ARE CARRIED AT THROUGH RATES

From any part of the United Kingdom to the principal cities of Germany and the Continent.

For Rates of Freight and other information apply to the CO-OPERATIVE WHOLESALE SOCIETY, 1, Balloon Street, Manchester; CO-OPERATIVE WHOLESALE SOCIETY, Goole; or Mr. W. ZODER, Agent, 3, Steinhoft, Hamburg.

PRINCIPAL EVENTS IN CONNECTION WITH THE CO-OPERATIVE WHOLESALE SOCIETY

SINCE ITS COMMENCEMENT.

Year.	Day.	Events.
1863	Aug. 11 ..	Co-operative Wholesale Society enrolled.
1864	Mar. 14 ..	Co-operative Wholesale Society commenced business.
1866	April 24 ..	Tipperary Branch opened.
1868	June 1 ..	Kilmallock Branch opened.
1869	Mar. 1 ..	Balloon Street Warehouse opened.
,,	July 12 ..	Limerick Branch opened.
1871	Nov. 26 ..	Newcastle-on-Tyne Branch opened.
1872	July 1 ..	Manchester Boot and Shoe Department commenced.
,,	Oct. 14 ..	Bank Department commenced.
1873	Jan. 13 ..	Crumpsall Works purchased.
,,	April 14 ..	Armagh Branch opened.
,,	June 2 ..	Manchester Drapery Department established.
,,	July 14 ..	Waterford Branch opened.
,,	Aug. 4 ..	Cheshire Branch opened.
,,	,, 4 ..	Leicester Works purchased.
,,	,, 16 ..	Insurance Fund established.
,,	Sept. 15 ..	Leicester Works commenced.
1874	Feb. 2 ..	Tralee Branch opened.
,,	Mar. 9 ..	London Branch established.
,,	Oct. 5 ..	Durham Soap Works commenced.
1875	April 2 ..	Liverpool Purchasing Department commenced.
,,	June 15 ..	Manchester Drapery Warehouse, Dantzic Street, opened.
1876	Feb. 14 ..	Newcastle Branch Buildings, Waterloo Street, opened.
,,	,, 21 ..	New York Branch established.
,,	May 24 ..	S.S. "Plover" purchased.
,,	July 16 ..	Manchester Furnishing Department commenced.
,,	Aug. 5 ..	Leicester Works first Extensions opened.
1877	Jan. 15 ..	Cork Branch established.
,,	Oct. 25 ..	Land in Liverpool purchased.
1879	Feb. 21 ..	S.S. "Pioneer," Launch of.
,,	Mar. 24 ..	Rouen Branch opened.
,,	,, 29 ..	S.S. "Pioneer," Trial trip.
,,	June 30 ..	Goole Forwarding Department opened.
1880	Jan. 30 ..	S.S. "Plover" sold.

PRINCIPAL EVENTS IN CONNECTION WITH THE CO-OPERATIVE WHOLESALE SOCIETY

SINCE ITS COMMENCEMENT.—CONTINUED.

YEAR.	DAY.	EVENTS.
1880	Aug. 14 ..	Heckmondwike Boot and Shoe Works commenced.
,,	Sept. 27 ..	London Drapery Department commenced in new premises,
1881	June 6 ..	Copenhagen Branch opened. [Hooper Square.
,,	July 27 ..	S.S. "Cambrian" purchased.
1882	Oct. 31 ..	Leeds Saleroom opened.
,,	Nov. 1 ..	London Tea and Coffee Department commenced.
1883	July 21 ..	S.S. "Marianne Briggs" purchased.
1884	April 7 ..	Hamburg Branch commenced.
,,	May 31 ..	Leicester Works second Extensions opened.
,,	June 25 ..	Newcastle Branch—New Drapery Warehouse opened.
,,	Sept. 13 ..	Commemoration of the Society's Twenty-first Anniversary at Newcastle-on-Tyne and London.
,,	,, 20 ..	Commemoration of the Society's Twenty-first Anniversary
,,	,, 29 ..	Bristol Depôt commenced. [at Manchester.
,,	Oct. 6 ..	S.S. "Progress," Launch of.
1885	Dec. 30 ..	Fire—Tea Department, London.
1886	April 22 ..	Nottingham Saleroom opened.
,,	Aug. 25 ..	Longton Crockery Depôt opened.
,,	Oct. 12 ..	S.S. "Federation," Launch of.
1887	Mar. 14 ..	Batley Mill commenced.
,,	June 1 ..	S.S. "Progress" damaged by fire at Hamburg.
,,	July 21 ..	Manchester—New Furnishing Warehouse opened.
,,	Nov. 2 ..	London Branch—New Warehouse opened.
,,	,, 2 ..	Manufacture of Cocoa and Chocolate commenced.
1888	July 7 ..	S.S. "Equity," Launch of.
,,	Aug. 29 ..	Heckmondwike—Currying Department commenced.
,,	Sept. 8 ..	S.S. "Equity," Trial trip.
,,	,, 27 ..	S.S. "Cambrian" sold.
,,	Oct. 14 ..	Fire—Newcastle Branch.
1889	Feb. 18 ..	Enderby Extension opened.
,,	Nov. 11 ..	Longton Depôt—New Premises opened.
1890	Mar. 10 ..	S.S. "Liberty," Trial trip.
,,	Oct. 22 ..	Northampton Saleroom opened.

MEETINGS AND OTHER COMING EVENTS IN CONNECTION WITH THE SOCIETY IN 1891.

Jan. 31—Saturday....Nomination Lists: Last day for receiving.

Mar. 3—Tuesday ....Voting Lists: Last day for receiving.

Mar. 7—Saturday....Newcastle and London Branch Quarterly Meetings.

Mar. 14—Saturday....General Quarterly Meeting—Manchester.

Mar. 28—Saturday....Quarter Day.

May 2—Saturday....Nomination Lists: Last day for receiving.

June 2—Tuesday ....Voting Lists: Last day for receiving.

June 6—Saturday....Newcastle and London Branch Quarterly Meetings.

June 13—Saturday....General Quarterly Meeting—Manchester.

June 27—Saturday....Quarter Day.

Aug. 1—Saturday....Nomination Lists: Last day for receiving.

Sept. 1—Tuesday ....Voting Lists: Last day for receiving.

Sept. 5—Saturday....Newcastle and London Branch Quarterly Meetings.

Sept. 12—Saturday....General Quarterly Meeting—Manchester.

Sept. 26—Saturday....Quarter Day.

Oct. 31—Saturday....Nomination Lists: Last day for receiving.

Dec. 1—Tuesday ....Voting Lists: Last day for receiving.

Dec. 5—Saturday....Newcastle and London Branch Quarterly Meetings.

Dec. 12—Saturday....General Quarterly Meeting—Manchester.

Dec. 26—Saturday....Quarter Day.

PROGRESS FROM COMMENCEMENT IN

Year Ending	£5 Shares taken up.	No. of Members belonging to our Shareholders.	Capital. Shares.	Loans and Deposits.	Trade and Bank Reserve Fund.	Insurance Fund.	Reserved Expenses.	Total.	Net Sales.
			£	£	£	£	£	£	£
Oct. 1864 (30 weeks)	....	18,337	2,455	Inclu-	....	....	..	2,455	51,857
„ 1865	....	24,005	7,182	ded in	....	....	..	7,182	120,754
„ 1866	....	31,030	10,968	Shares.	82	....	..	11,050	175,489
Jan. 1868 (65 weeks)	....	59,349	11,276	14,355	682	....	..	26,313	331,744
„ 1869	....	74,737	14,888	16,059	1,115	....	..	32,062	412,240
„ 1870	....	79,245	16,556	22,822	1,280	....	..	40,658	507,217
„ 1871 (53 weeks)	....	89,880	19,015	22,323	2,826	....	..	44,164	677,734
„ 1872	5,835	114,588	24,410	25,768	1,910	....	..	52,088	758,764
„ 1873	6,949	134,276	31,352	112,589	2,916	....	..	146,857	1,153,132
„ 1874	13,899	168,985	48,126	147,949	1,613	2,356	..	200,044	1,636,950
„ 1875	17,326	198,608	60,930	193,594	5,373	3,385	..	263,282	1,964,829
„ 1876	22,254	249,516	78,249	286,614	8,910	5,834	..	379,607	2,247,395
„ 1877 (53 weeks)	24,717	276,522	94,590	299,287	12,631	10,843	634	417,985	2,697,366
„ 1878	24,979	274,649	103,091	287,536	14,554	12,556	788	418,525	2,827,052
„ 1879	28,206	305,161	117,657	291,939	16,245	15,127	1,146	442,114	2,705,625
Dec. 1879 (50 weeks)	30,688	331,625	130,615	321,670	25,240	15,710	1,095	494,330	2,645,331
„ 1880	33,663	361,523	146,061	361,805	38,422	17,905	1,661	565,854	3,339,681
„ 1881	34,351	367,973	156,052	386,824	16,037	18,644	2,489	580,046	3,574,095
„ 1882	38,643	404,006	171,940	416,832	20,757	19,729	2,945	632,203	4,038,238
„ 1883	41,783	433,151	186,692	455,879	20,447	21,949	6,214	691,181	4,546,889
„ 1884 (53 weeks)	45,099	459,784	207,080	494,840	25,126	24,324	9,988	761,358	4,675,871
„ 1885	51,099	507,772	234,112	524,781	31,094	40,084	11,104	841,175	4,793,151
„ 1886	58,612	558,104	270,679	567,527	37,755	57.015	11.403	944,379	5,223,179
„ 1887	64,475	604,800	300,953	590,091	39,095	73.237	13,666	1,017,042	5,718,235
„ 1888	67,704	634,196	318 583	648,134	51,189	84,201	13,928	1,116,035	6,200,074
„ 1889 (53 weeks)	72,399	679,336	342,218	722,321	58,358	119,541	9,197	1,251,635	7,028,944
	....	....	....	....	....	....	..	....	70,046,336

TRADE

Dr. RESERVE FUND ACCOUNT FROM

	£
Additions to—	
From Disposal of Profit Account, as above	98,483
Bonus to Employés: Balances between Amounts Provided and actually Paid	311
Dividend on Bad Debts, previously written off	721
Unclaimed Shares and Cash	20
Profit on Sale of Strawberry Estate, Newcastle	1,953
„ „ Land, Liverpool	713
„ „ Land and Buildings, Rosedale	11
Interest on Manchester Ship Canal Shares	625
Dividend on Sales to Employés	71
	£102,908

MARCH, 1864, TO DECEMBER, 1889.

Comparison with corresponding period previous year.		Distributive Expenses.			Net Profit.	Average Dividend paid per £.	Transferred to Trade Reserve Fund.	Dates Departments and Branches were commenced.
			Rate on Sales					
Increase.	Rate.	Amnt.	Per £.	Per £100.				
£		£		s. d.	£	d.	£	
....	..	347	1⅜	13 4½	267	1½	....	
....	..	906	1⅜	15 0	1,858	3½	....	
54,735	45¼	1,615	2⅜	18 4⅜	2,310	3	234	Tipperary.
112,688	51⅜	3,135	2¼	18 10¾	4,411	3	450	
124,063	43	3,388	1⅝	16 2¼	4,862	2⅜	416	Kilmallock.
94,977	23	4,644	2⅛	18 3⅜	4,248	1⅝	542	Limerick.
159,379	30⅜	5,583	1⅝	16 5⅜	7,626	2¼	1,620	
86,559	12⅞	6,853	2¼	18 0⅜	7,867	2¼	1,036	Newcastle.
394,368	51⅛	12,811	2⅜	22 2⅜	11,116	2¼	1,243	Manchester Boot and Shoe, Crumpsall.
483,818	41⅞	21,147	3	25 10	14,233	2	922	Armagh, Manchester Drapery, Leicester, Hartford, Waterford, Clonmel.
327,879	20	28,436	3⅜	28 11¼	20,684	2	4,461	London, Tralee, Durham.
282,566	14⅜	31,555	3⅜	28 0¼	26,750	2⅜	4,826	Liverpool.
401,095	17½	42,436	3⅞	31 5½	36,979	2⅜	4,925	New York, Goole, Furnishing. S.S. purchased.
188,897	7½	43,169	3⅜	30 6⅜	29,189	2	579	Cork.
121,427*	4⅜*	43,093	3¾	31 10¼	34,959	2⅛	5,970	
22,774	⅞	41,309	3⅞	31 2⅜	42,764	2⅜	8,060	Launch of Steamship "Pioneer." Rouen Goole forwarding depôt.
611,282	22⅜	47,153	3⅜	28 2¾	42,090	2⅜	10,651	Heckmondwike.
234,414	7	51,306	3⅜	28 8½	46,850	2⅜	7,672	Copenhagen. Purchase of S.S. "Cambrian."
464,143	12⅞	57,340	3⅜	28 4½	49,658	2⅜	3,416	Tea and Coffee Department, London.
508,651	12½	66,057	3⅜	29 0⅜	47,885	2⅜	3,176	Purchase of s.s. "Marianne Briggs."
41,042	⅞	70,343	3½	30 1	54,491	2⅜	6,432	Hamburg. Bristol Depôt. Launch of "Progress.'
203,946	4⅜	74,305	3⅜	31 0	77,630	3⅜	4,434	
430,028	8⅞	81,653	3⅜	31 3⅜	83,328	3⅜	7,077	Longton Depôt. Launch of S.S. "Federation."
490,056	9⅜	93,979	3⅜	32 10¼	65,141	2½	4,130	Batley, Heckmondwike Currying.
486,839	8½	105,027	4	33 10½	82,490	2⅞	13,962	London Cocoa Department. Launch of S.S. "Equity." Batley Ready Mades.
709,638	11⅛	117,849	4	33 6⅜	101,984	3⅛	2,249	
....	..	1,055,389	3½	30 1½	901,670	2½	98,483	

* Decrease.

DEPARTMENT.

COMMENCEMENT OF SOCIETY. Cr.

	£
Deductions from—	
Celebration Dinner: Opening Warehouse, Balloon Street	56
Land and Buildings Account Depreciation, Special	1,148
Fixtures " " "	852
Newcastle Formation Expenses	16
Insurance Fund	6,000
Investments Written off: Bank Department	18,259
" " Trade Department	10,660
Manchester Ship Canal, on Shares Account	10,000
Donations, Subscriptions, &c.	10,256
21st Anniversary Commemoration Expenses	2,017
Balance:— Total	59,264
Reserve Fund, as per Capital Account, December 28, 1889	43,644
	£102,908

STATEMENT OF LAND, BUILDINGS, STEAMSHIPS, AND

		Land.						
		Area in Square Yards.	Yearly Chief.	Total Payments	Less Written Off.	Nomin'l Original Value.	Depreciation.	Nomin'l Value June 28, 1890.
Manchester :—								
Balloon Street, No. 1	Central Offices, Bank, Assembly-room, & Grocery Warehouse.	808	£ s. d. 14 11 0	£ 3400	£ ..	£ 3400	£ 2476	£ 924
Balloon Street	Extensions	633	8 13 6	10286	..	10286	1741	8545
Garden Street, Nos. 39 & 41.	Grocery Warehonse	377	7 1 9	3024	..	3024	1200	1824
Garden Street, No. 37	Grocery Warehouse	293	....	2586	..	2586	1052	1534
Garden Street, No. 35	Grocery W'house & Engineroom	733$\frac{2}{3}$	0 12 1	3862	..	3862	2118	1744
Garden Street..............	Purchases from Booth's and Robinson's................	750	....	6000	..	6000	354	5646
Corporation-st., Clock Alley, Holgate-st., and Balloon-st	White Lion Hotel, Warehouses on Rental, and New Furnishing and Boot and Shoe Depts.	3367	Freehold.	36963	..	36963	4890	32073
Dantzic St. and Garden St..	Drapery Warehouse	421	,,	5395	..	5395	2396	2999
Dantzic St. and Garden St..	Drapery Warehouse (late Boot and Shoe Warehouse)........	202$\frac{3}{4}$	,,	2525	..	2525	759	1766
Dantzic St. and Garden St..	Drapery Extension............	373$\frac{2}{9}$	,,	5014	..	5014	805	4209
Dantzic St., Nos. 41 to 47 ..	Woollen Cloth and Tailoring Department, &c.	468$\frac{1}{3}$	5 0 0	5000	..	5000	656	4344
	Total Manchester....	8426$\frac{35}{36}$	35 18 4	84055	..	84055	18447	65608
Newcastle-on-Tyne :— Thornton Street and Waterloo Street................	Offices, Grocery, and Drapery W'house, Boot & Shoe & Furnishing W'house, Dining-rm.	2729	Freehold.	13872	44	13828	3768	10060
London :— Leman Street & Great Prescott Street	Offices, Grocery, Drapery, Boot and Shoe, Furnishing, and Tea, Coffee, and Cocoa Warehouse, Property on Rental, Stables, &c.	4072$\frac{1}{3}$	,,	22683	1083	21600	2541	19059
Bristol	Warehouse and Sale Rooms ..	....	....	..	..	..	..	..
Crumpsall..................	Biscuits and Sweets, and Dry and Soft Soap Works........	10535	45 0 0	..	..	..	..	..
Leicester	Boot and Shoe Works	1160	Freehold.	5526	..	5526	1010	4516
Enderby....................	,, ,, ...	776	....	84	..	84	4	80
Heckmondwike	Boot & Shoe & Currying Works	5947	Freehold.	1442	..	1442	171	1271
Durham	Soap Works	1094$\frac{2}{3}$	,,	1095	..	1095	418	677
Batley....................	Woollen Mill & Ready-mades..	....	....	..	..	..	..	..
Dunston	Corn Mill	7036	....	3726	..	3726	279	3447
Liverpool	Office Fittings................	....	....	..	..	..	..	..
Cheshire	Horse and Trap	....	....	..	..	..	..	..
Leeds	Sale Room....................	....	....	..	..	..	..	..
Limerick (839 years' lease)..	Butter Purchasing Depôt	480$\frac{1}{3}$	10 0 0	..	..	..	..	..
Waterford	,, ,, ,, ...	....	....	..	..	..	..	..
Kilmallock	,, ,, ,, ...	....	....	..	..	..	..	..
Tipperary (99 years' lease)..	House & Butter Store on Rental.	595$\frac{1}{2}$	4 0 0	..	..	..	..	..
Cork	Butter Purchasing Depôt	....	....	..	..	..	..	..
Tralee (99 years' lease)	Butter and Eggs ,, ...	693$\frac{1}{3}$	5 0 0	..	..	..	..	..
Armagh....................	Butter and Eggs ,, ...	....	....	..	..	..	..	..
New York (America)	Office Fittings	....	....	..	..	..	..	..
Copenhagen	,, ,, ...	....	....	..	..	..	..	..
Hamburg..................	,, ,, and House......	....	....	..	..	..	..	..
Longton	Crockery Depôt	1708	....	470	..	470	12	458
Rouen (France)............	Shipping Depôt, Shed, Office Fittings, &c.	....	....	..	..	..	..	..
Calais	,, ,, Cranes & Lines	....	....	..	..	..	..	..
Goole	,, ,, Office, &c.	....	....	..	..	..	..	..
Longsight	Land	45347	Freehold	9337	..	9337	1567	7770
Gorton	Dwelling-houses and Shops ..	9000	....	3925	..	3925	29	3896
Bolton	Dwelling-houses and Shops ..	12183$\frac{1}{2}$	130 3 0	..	..	..	..	..
Newhall	Dwelling-houses and Shops ..	7260	Freehold.	300	..	300	51	249
Taff	Dwelling-houses and Shops....	1150	9 11 0	..	..	..	..	..
South Shields..............	Dwelling-houses and Shops....	453$\frac{1}{3}$	Freehold.	165	..	165	26	139
Garston and Rouen, Goole and Calais, and Goole and Hamburg Lines....	S.S. "Pioneer"	....	....	..	..	..	..	..
	S.S. "Unity"	....	....	..	..	..	..	..
	S.S. "Progress"	....	....	..	..	..	..	..
	S.S. "Federation"	....	....	..	..	..	..	..
	S.S. "Equity"	....	....	..	..	..	..	..
	S.S. "Liberty"	....	....	..	..	..	..	..
	Totals..	120647$\frac{35}{36}$	239 12 4	146680	1127	145553	28323	117230

FIXTURES, QUARTER ENDING JUNE 28TH, 1890.

BUILDINGS AND STEAMSHIPS.					FIXTURES.					TOTALS.				
Total Payments.	Less Written Off.	Nomin'l Origin'l Value.	Depreciation.	Nomin'l Value, June 28, 1890.	Total Payments.	Less Written Off.	Nomin'l Origin'l Value.	Depreciation.	Nomin'l Value, June28 1890.	Total Payments.	Less Written Off.	Nomin'l Origin'l Value.	Depreciation.	Nomin'l Value, June 28, 1890.
£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
10737	..	10737	9874	863	8979	..	8979	8569	410	23116	..	23116	20919	2197
13026	..	13026	601	12425	40	..	40	35	5	23352	..	23352	2377	20975
14424	..	14424	5822	8602	306	..	306	306	..	17754	..	17754	7328	10426
1183	..	1183	1018	165	1133	..	1133	1133	..	4902	..	4902	3203	1699
6131	..	6131	2940	3191	3173	..	3173	2674	499	13166	..	13166	7732	5434
200	..	200	17	183	..	..	..	..	..	6200	..	6200	371	5829
27444	..	27444	4164	23280	2888	..	2888	665	2223	67295	..	67295	9719	57576
8388	..	8388	6763	1625	2729	..	2729	2729	..	16512	..	16512	11888	4624
5684	..	5684	3852	1832	702	..	702	667	35	8911	..	8911	5278	3633
9114	246	8868	1010	7858	4946	..	4946	553	4393	19074	246	18828	2368	16460
8000	..	8000	2099	5901	198	..	198	59	139	13198	..	13198	2814	10384
104331	246	104085	38160	65925	25094	..	25094	17390	7704	213480	246	213234	73997	139237
44212	..	44212	17220	26992	11733	..	11733	8121	3612	69817	44	69773	29109	40664
85516	..	85516	20303	64713	27073	..	27073	9496	17577	135272	1083	134189	32840	101349
..	..	..	..	..	728	..	728	210	518	728	..	728	210	518
16620	..	16620	6552	10068	10763	203	10560	5939	4621	27383	203	27180	12491	14689
15219	..	15219	6583	8636	5609	..	5609	3790	1819	26354	..	26354	11383	14971
1058	9	1049	79	970	831	..	831	85	746	1973	9	1964	168	1796
8585	778	7807	1366	6441	4170	..	4170	1206	2964	14197	778	13419	2743	10676
3924	..	3924	2801	1123	3040	..	3040	2926	114	8659	..	8059	6145	1914
1319	..	1319	176	1143	4853	..	4853	934	3919	6172	..	6172	1110	5062
44917	5521	39396	1888	37508	16770	..	16770	486	16284	65413	5521	59892	2653	57239
..	..	..	..	..	313	147	156	147	9	303	147	156	147	9
..	..	..	..	..	252	86	166	166	..	252	86	166	166	..
..	..	..	..	..	393	186	207	50	157	393	186	207	50	157
352	..	352	318	34	232	..	232	232	..	584	..	584	550	34
..	..	..	..	..	3	..	3	3	..	3	..	3	3	..
..	..	..	..	..	5	..	5	5	..	5	..	5	5	..
840	..	840	678	162	23	..	23	23	..	863	..	863	701	162
..	..	..	..	..	50	..	50	43	7	50	..	50	43	7
906	..	906	463	443	..	..	..	..	..	906	..	906	463	443
125	..	125	9	116	229	..	229	220	9	354	..	354	229	125
..	..	..	..	..	6	..	6	6	..	6	..	6	6	..
..	..	..	..	..	63	..	63	38	25	63	..	63	38	25
..	..	..	..	..	15	..	15	7	8	15	..	15	7	8
1815	96	1719	68	1651	248	..	248	19	229	2383	96	2437	99	2338
..	..	..	..	..	162	..	162	70	92	162	..	162	70	92
..	..	..	..	..	1015	..	1015	537	478	1015	..	1015	537	478
..	..	..	..	..	127	..	127	85	42	127	..	127	85	42
..	..	..	..	..	..	..	..	..	..	9337	..	9337	1567	7770
12561	..	12561	5026	7541	..	..	..	..	..	16486	..	16486	5049	11437
8440	..	8440	3630	4810	..	..	..	..	..	8440	..	8440	3630	4810
494	..	494	217	277	..	..	..	..	..	794	..	794	268	526
3048	..	3048	1069	1979	..	..	..	..	..	3048	..	3048	1069	1979
1381	..	1381	433	948	..	..	..	..	..	1546	..	1546	459	1087
11458	..	11458	6559	4899	..	..	..	..	..	11458	..	11458	6559	4899
8634	..	8634	2973	5661	..	..	..	..	..	8634	..	8634	2973	5661
8994	..	8994	4144	4850	..	..	..	..	..	8994	..	8994	4144	4850
14973	..	14973	2890	12083	..	..	..	..	..	14973	..	14973	2890	12083
17799	..	17799	1854	15945	..	..	..	..	..	17799	..	17799	1854	15945
20855	..	20855	880	19975	..	..	..	..	..	20855	..	20855	880	19975
*355663	6650	349013	107533	241480	113790	622	113168	52234	60934	698846	8399	690447	207390	483057
†82713	..	82713	19300	63413										

* Buildings. † Steamships.

MANCHESTER GROCERY AND PROVISION TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
July, 1874	353216	3682	0 2½	1831	0 1¼	64083
Oct. „	471586	4342	0 2 3/5	6905	0 3½	71341
January, 1875	285353	3692	0 3⅛	3250	0 2¾	71360
April „	306720	3627	0 2¾	2082	0 1⅝	52803
July „	359076	3458	0 2½	3996	0 2⅝	51573
October „	427793	3884	0 2½	6379	0 3½	50723
January, 1876	382947	3732	0 2 3/5	6635	0 4 7/15	56487
April „	355644	4091	0 2⅜	5070	0 3 7/15	55040
July „	398787	4608	0 2⅝	3975	0 2½	50136
October „ (14 weeks)	543067	4685	0 2	10514	0 4⅜	64695
January, 1877	410139	4313	0 2⅝	8434	0 4⅞	68205
April „	350666	4257	0 2⅞	2501	0 1⅜	47424
July „	475064	4261	0 2⅛	6848	0 3 7/15	64838
October „	513321	4157	0 2	10377	0 4⅛	63592
January, 1878	421966	4191	0 2⅜	6019	0 3½	53790
April „	392083	4380	0 2⅝	6127	0 3¾	61765
July „	401932	4401	0 2⅝	5216	0 3	57128
October „	491527	4392	0 2½	8669	0 4½	59793
January, 1879	398071	4200	0 2½	6490	0 3¾	55819
March „ (10 weeks)	263584	3254	0 2½	2790	0 2½	71347
June „ (14 weeks)	404338	4722	0 2¾	3659	0 2⅛	79086
September, 1879	452049	4376	0 2½	9306	0 4⅛	61379
December, „	470686	4409	0 2½	13071	0 6⅝	71446
March, 1880	418000	4644	0 2⅝	5706	0 3½	95015
June „	484068	4797	0 2¾	4327	0 2⅛	82832
September „	564183	4718	0 2	12086	0 5⅛	102466
December „	532133	4752	0 2½	8858	0 4	70091
March, 1881	404706	4692	0 2⅝	5927	0 3½	84602
June „	497493	4865	0 2⅞	7256	0 3⅝	81648
Sept. „	598864	5019	0 2	11227	0 4½	84093
Dec. „	546147	5307	0 2½	8050	0 3⅝	87277
March, 1882	468027	5884	0 3	6222	0 3⅛	107940
June „	559587	5839	0 2½	6187	0 2⅝	92810
Sept. „	617265	5704	0 2⅛	9339	0 3⅜	92696
Dec. „	653521	6239	0 2¼	8896	0 3½	141191
March, 1883	558465	7029	0 3	7296	0 3⅛	125416
June „	606478	7097	0 2¾	4360	0 1⅝	130279
Sept. „	692614	6927	0 2⅜	7514	0 2½	97095
Dec. „	686852	7284	0 2½	8285	0 2½	109414
March, 1884	502853	7007	0 3½	5493	0 2½	89334
June „ (14 weeks)	641730	7616	0 2⅜	5262	0 1⅝	94779
Sept. „	675845	6972	0 2⅜	7602	0 2⅜	104832
Dec. „	636860	6927	0 2½	6536	0 2⅜	107524
March, 1885	514235	7124	0 3½	7455	0 3⅜	78912
June „	578862	6746	0 2½	13340	0 5½	90848
Sept. „	644647	6586	6 2⅜	10555	0 3½	97421
Dec. „	638201	7028	0 2⅜	10407	0 3½	92790
March, 1886	568243	7131	0 3	8553	0 3½	95156
June „	600840	7291	0 2⅝	7454	0 2⅝	78561
Sept. „	671578	7469	0 2⅜	10913	0 3⅝	104934
Dec. „	730774	7886	0 2½	14461	0 4⅝	113620
March, 1887	604978	7724	0 3	10305	0 4	103609
June „	648521	7976	0 2⅞	8133	0 3	96828
Sept. „	761498	8248	0 2½	11926	0 3¾	122923
Dec. „	812627	9031	0 2⅝	15152	0 4⅝	129565
March, 1888	673598	8387	0 2⅞	10347	0 3⅜	101993
June „	720959	8794	0 2⅜	11111	0 3⅜	109278
Sept. „	802383	8900	0 2⅜	14345	0 4½	121208
Dec. „	895285	9833	0 2⅝	13095	0 3½	139849
March, 1889	769225	9300	0 2⅞	14235	0 4⅝	150890
June „	839900	10001	0 2¾	19357	0 5½	143149
Sept. „ (14 weeks)	960271	10308	0 2½	12090	0 3	116194
Dec., „	933799	10196	0 2½	15770	0 4	112395
March, 1890 (12 weeks)	724632	9399	0 3	12669	0 4⅛	92544
June, „ (14 weeks)	887966	10711	0 2⅞	15486	0 4⅛	91409
	36657628	400497	0 2½	554582	0 3⅜	....

MANCHESTER DRAPERY AND WOOLLEN CLOTH TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Jannary,1874.....	10575	348	0 8	201	0 $4\frac{9}{16}$	....	....	11568
April „	12712	564	0 $10\frac{3}{8}$	436	0 $8\frac{7}{16}$	....	....	19409
July „	12991	867	1 4	952	1 $5\frac{1}{8}$	....	....	26002
October „	24185	1223	1 $0\frac{1}{8}$	....	....	560	0 $5\frac{1}{2}$	31475
January, 1875.....	21402	1218	1 $1\frac{3}{16}$	416	0 $4\frac{3}{8}$	....	....	36824
April „	26273	1319	1 $0\frac{1}{16}$	239	0 $2\frac{1}{4}$	....	....	37905
July „	30513	1748	1 $1\frac{7}{16}$	376	0 3	....	....	47101
October „	36071	2041	1 $1\frac{9}{16}$	246	0 $1\frac{3}{8}$	....	....	65280
January, 1876.....	36629	2156	1 $2\frac{1}{8}$	....	....	141	0 $0\frac{7}{8}$	72408
April „	41708	2397	1 $1\frac{3}{4}$	60	0 $0\frac{5}{16}$	....	....	74071
July „	32996	2509	1 $6\frac{1}{4}$	....	....	634	0 $4\frac{3}{8}$	73833
October „ (14 weeks)	38977	2370	1 $2\frac{3}{8}$	....	....	453	0 $2\frac{7}{8}$	70898
January, 1877.....	33402	2115	1 $3\frac{1}{2}$	....	....	393	0 $2\frac{3}{8}$	69267
April „	31620	2316	1 $5\frac{9}{16}$	....	....	1678	1 $0\frac{3}{4}$	64349
July „	25640	2197	1 $8\frac{9}{16}$	....	....	1115	0 $10\frac{7}{16}$	66589
October „	31389	2148	1 $4\frac{7}{16}$	....	....	154	0 $1\frac{3}{16}$	62442
January, 1878.....	36269	2218	1 $2\frac{3}{8}$	....	....	1197	0 8	48511
April „	37000	2162	1 2	316	0 2	....	....	44995
July „	31486	2186	1 $4\frac{3}{8}$	60	0 $0\frac{1}{4}$	....	....	43849
October „	33703	2146	1 $3\frac{1}{4}$	191	0 $1\frac{3}{8}$	....	....	44662
January, 1879.....	32557	2024	1 $2\frac{7}{8}$	68	0 $0\frac{3}{16}$	....	....	44139
March „ (10 weeks)	25869	1622	1 3	193	0 $1\frac{1}{4}$	....	....	44151
June „ (14 weeks)	33171	2116	1 $3\frac{1}{4}$	619	0 $4\frac{1}{2}$	....	....	45960
Sept. „	30136	2022	1 4	168	0 $1\frac{3}{8}$	....	....	44446
Dec. „	37648	2057	1 1	694	0 $4\frac{1}{2}$	....	....	43225
March, 1880.....	37484	2160	1 $1\frac{7}{8}$	472	0 3	....	....	41788
June „	34195	2035	1 $2\frac{1}{4}$	374	0 $2\frac{5}{8}$	....	....	43792
Sept. „	30734	2264	1 $5\frac{3}{8}$	201	0 $1\frac{1}{2}$	....	....	45664
Dec. „	37008	2044	1 $1\frac{1}{4}$	1267	0 8	....	....	44105
March, 1881.....	32449	2078	1 $3\frac{3}{8}$	564	0 $4\frac{1}{4}$	....	....	40245
June „	30939	2002	1 $3\frac{1}{2}$	453	0 $3\frac{3}{8}$	....	....	43533
Sept. „	31825	2060	1 $3\frac{1}{4}$	322	0 $2\frac{3}{8}$	....	....	43315
Dec. „	37701	2028	1 $0\frac{7}{8}$	593	0 $3\frac{1}{4}$	....	....	42203
March, 1882.....	34875	2064	1 $2\frac{1}{8}$	820	0 $5\frac{3}{4}$	....	....	39171
June „	32589	2017	1 $2\frac{1}{8}$	809	0 $5\frac{7}{8}$	....	....	44073
Sept. „	33983	2083	1 $2\frac{3}{8}$	535	0 $3\frac{7}{8}$	....	....	42467
Dec. „	41622	2173	1 $0\frac{1}{2}$	1340	0 $7\frac{7}{8}$	....	....	40854
March, 1883.....	38527	2250	1 2	325	0 2	....	....	39420
June „	33329	2098	1 3	1165	0 $8\frac{3}{8}$	....	....	38606
Sept. „	38935	2241	1 $1\frac{3}{8}$	856	0 $5\frac{1}{4}$	....	....	43097
Dec. „	46206	2387	1 $0\frac{3}{8}$	1825	0 $9\frac{3}{8}$	....	....	41365
March, 1884.....	43145	2306	1 $0\frac{3}{4}$	768	0 $4\frac{3}{4}$	....	....	38727
June „ (14 weeks)..	46839	2538	1 1	1054	0 $5\frac{3}{8}$	....	....	41271
Sept. „	45983	2391	1 $0\frac{1}{2}$	1735	0 9	....	....	45074
Dec. „	50220	2352	0 $11\frac{7}{8}$	2136	0 $10\frac{1}{4}$	....	....	42133

MANCHESTER DRAPERY AND WOOLLEN CLOTH TRADE.—*Con.*

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
March, 1885	50626	2543	1 0	1768	0 8⅜	....	....	42168
June „	43007	2439	1 1½	1403	0 7¾	....	....	44931
Sept. „	47128	2543	1 0⅞	1530	0 7¾	....	....	52236
Dec. „	53682	2790	1 0⅜	1023	0 4½	....	....	50570
March, 1886	53002	2726	1 0¼	960	0 4½	....	....	50570
June „	52440	2060	1 0	1878	0 8½	....	....	51753
Sept. „	53443	2822	1 0⅜	1086	0 4⅞	....	....	56784
Dec. „	58427	2965	1 0⅛	1736	0 7⅛	....	....	60405
March, 1887	55992	2876	1 0¼	1295	0 5⅞	....	....	62131
June „	54519	3019	1 1¼	894	0 3⅞	....	....	67260
Sept. „	54743	3067	1 1⅜	671	0 2⅞	....	....	70597
Dec. „	67270	3262	0 11⅝	762	0 2⅝	....	....	65897
March, 1888	63366	3117	0 11¾	896	0 3⅜	....	....	67046
June „	63091	3254	1 0⅜	1409	0 5½	....	....	64113
Sept. „	60251	3168	1 0½	233	0 0⅞	....	....	69685
Dec. „	68618	3354	0 11⅝	2227	0 7¼	....	....	70560
March, 1889	64977	3327	1 0¼	1259	0 4⅝	....	....	80383
June „	70325	3545	1 0	694	0 2½	....	....	82946
Sept. „ (14 weeks)	73040	4117	1 1½	1208	0 3⅞	....	....	95333
Dec. „	74922	4022	1 0⅞	1167	0 3⅝	....	....	100126
March, 1890 (12 weeks)	77152	4129	1 0¾	734	0 2¼	....	....	100775
June, „ (14 weeks)	87924	4741	1 0¾	2311	0 6¼	....	....	102395
	2851355	160124	1 1½	49993	....	6325	....	....
Less Depreciation allowed, see Disposal of Profit Account, October, 1877		£4757						
„ Loss		6325		11082	....			
Leaves Net Profit		....		38911	0 3¼			

MANCHESTER WOOLLEN CLOTH DEPARTMENT.

From the time of commencing to publish a separate Account in Balance Sheet.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
		£	s. d.	£	s. d.	£	s. d.	
March 1884	4504	307	1 $4\frac{1}{4}$	1	....	....	....	4839
June „ (14 weeks)	7243	341	0 $11\frac{1}{2}$	226	0 $7\frac{3}{8}$	....	....	4212
September „	4272	301	1 $4\frac{7}{8}$	408	1 $10\frac{7}{8}$	....	....	4720
December „	4349	272	1 3	....	....	226	1 $0\frac{3}{8}$	4407
March 1885	5748	294	1 $0\frac{1}{2}$	159	0 $6\frac{5}{8}$	....	....	5031
June „	6186	307	0 $11\frac{7}{8}$	195	0 $7\frac{1}{2}$	....	....	4151
September „	4476	310	1 $4\frac{5}{8}$	61	0 $3\frac{7}{8}$	....	....	5723
December „	4800	338	1 $4\frac{7}{8}$	....	....	79	0 $3\frac{7}{8}$	5242
March 1886	5129	374	1 $5\frac{1}{4}$	....	....	170	0 $7\frac{7}{8}$	6961
June „	7542	359	0 $11\frac{3}{8}$	401	1 $0\frac{3}{4}$	....	....	5661
September „	4363	331	1 $0\frac{3}{8}$	77	0 $4\frac{1}{8}$	....	....	6641
December „	5139	353	1 $4\frac{3}{8}$	19	0 $0\frac{7}{8}$	....	....	6275
March 1887	5684	357	1 3	....	....	84	0 $3\frac{1}{4}$	7060
June „	6213	354	1 $1\frac{3}{8}$	203	0 $7\frac{3}{4}$	....	....	6023
September „	4512	351	1 $6\frac{5}{8}$	....	....	43	0 $2\frac{1}{4}$	6335
December „	5411	365	1 $4\frac{1}{8}$	....	....	78	0 $3\frac{3}{4}$	6112
March 1888	5565	370	1 $3\frac{7}{8}$	....	....	173	0 $7\frac{3}{8}$	7945
June „	7193	396	1 $1\frac{7}{8}$	243	0 8	....	....	6654
September „	4756	379	1 7	....	....	111	0 $5\frac{1}{2}$	7094
December „	5533	402	1 $5\frac{3}{8}$	16	0 $0\frac{5}{8}$	....	....	8450
March 1889	5865	405	1 $4\frac{1}{4}$	....	....	159	0 $6\frac{3}{8}$	10971
June „	8131	418	1 $0\frac{1}{4}$	314	0 $9\frac{1}{4}$	....	....	11092
September „ (14 weeks)	6293	525	1 8	....	....	111	0 $4\frac{1}{8}$	11231
December „	6524	497	1 $6\frac{1}{2}$	....	....	256	0 $9\frac{3}{8}$	12277
March 1890 (12 weeks)	6315	497	1 $6\frac{7}{8}$	....	....	416	1 $3\frac{3}{4}$	11586
June „ (14 weeks)	8244	552	1 4	67	0 $1\frac{7}{8}$	....	....	11504
	149990	9755	1 $9\frac{1}{2}$	2390	....	1906	....	....
		Less Loss		1906	....			
		Leaves Net Profit ..		484	0 $0\frac{3}{4}$			

MANCHESTER BOOT AND SHOE TRADE.

From the time of commencing to keep a separate Account

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£	d.	£
January, 1874.....	5506	204	8 3/4	1	..	..	..	4715
April „	7529	231	7 3/4	352	11 1/4	..	..	4856
July „	10794	288	6 3/4	214	4 3/4	..	..	4812
October „	8877	321	8 3/4	..	..	95	2 1/2	4897
January, 1875.....	10057	289	6 7/8	277	6 3/4	..	..	5197
April „	12240	310	6	341	6 3/4	..	..	4614
July „	14275	321	5 1/4	16	1/4	..	..	5359
October „	15234	351	5 1/2	341	5 3/8	..	..	7474
January, 1876.....	12136	344	6 3/4	77	1 1/2	..	..	7711
April „	13777	418	7 5/16	187	3 1/4	..	..	8517
July „	15259	474	7 3/4	172	2 3/4	..	..	7894
October „ (14 weeks)	15893	472	7 1/8	168	2 1/4	..	..	7243
January, 1877.....	12378	447	8 3/4	59	1 1/4	..	..	6082
April „	14018	461	7 5/8	220	3 3/4	..	..	6973
July „	16969	516	6 5/16	332	4 1/16	..	..	7994
October „	14185	498	8 7/16	132	2 1/4	..	..	7594
January, 1878.....	13132	500	9 1/8	102	1 3/8	..	..	7935
April „	13591	572	10	153	2 3/8	..	..	8349
July „	17913	564	7 1/2	417	5 1/2	..	..	9646
October „	15585	580	8 5/8	340	5 1/2	..	..	9658
January, 1879.....	12238	476	9 1/2	..	..	143	2 3/4	10242
March „ (10 weeks)	8835	403	10 7/8	234	6 3/8	..	..	10517
June „ (14 weeks)	17443	579	8	415	5 3/4	..	..	10998
September „	14150	583	9 7/8	119	2	..	..	10709
December „	14842	570	9 1/4	..	..	16	1/4	10964
March, 1880.....	15095	585	9 1/2	479	7 5/8	..	..	10301
June „	17613	609	8 1/2	147	2	..	..	10688
September „	15069	600	9 1/2	125	2	..	..	10250
December „	14362	593	10	4	..	..	..	11484
March 1881.....	15375	596	9 1/2	199	3	..	..	10107
June „	21621	660	7 1/4	335	3 1/8	..	..	11254
September „	17362	630	8 5/8	184	2 1/2	..	..	11542
December „	17024	606	8 1/2	124	1 3/8	..	..	11377
March, 1882.....	16838	637	9	121	1 3/4	..	..	10945
June „	22134	660	7 1/8	384	4 1/8	..	..	12395
September „	18328	637	8 1/4	419	5 3/8	..	..	12263
December „	18801	649	8 1/4	322	4	..	..	12564
March, 1883.....	20091	704	8 3/8	183	2 1/8	..	..	15967
June „	25186	772	7 1/4	537	5	..	..	13817
September „	20457	701	8 1/8	355	4 1/8	..	..	13335
December „	20322	705	8 1/4	186	2 1/8	..	..	12938
March, 1884.....	20277	687	8 1/8	292	3 3/8	..	..	13955
June „ (14 weeks)	31093	881	6 3/4	567	4 3/8	..	..	14274
September „	26084	802	7 3/8	372	3 3/8	..	..	14675
December „	22240	780	8 3/8	355	3 3/4	..	..	16576

MANCHESTER BOOT AND SHOE TRADE.—*Continued.*

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£	d.	£
March, 1885.....	26485	930	8 3/5	80	0 5/8	..	..	17766
June ,, ...	31199	919	7	535	4	..	..	16088
September ,, ...	24394	840	8 1/2	504	4 7/8	..	..	16240
December ,, ...	24677	907	8 3/4	276	2 3/8	..	..	16074
March, 1886.....	27103	890	7 7/8	392	3 3/8	..	..	17581
June ,, ...	38429	1033	6 3/8	606	3 1/4	..	..	17772
September ,, ...	27000	968	8 1/2	876	7 3/4	..	..	17066
December ,, ...	28900	881	7 1/4	893	7 3/8	..	..	16578
March, 1887.....	28969	952	7 7/8	704	5 3/4	..	..	21418
June ,, ...	38380	1148	7 1/8	1174	7 1/4	..	..	21044
September ,, ...	28387	978	8 1/4	608	5 1/8	..	..	19563
December ,, ...	30363	992	7 3/4	597	4 5/8	..	..	19727
March, 1888.....	28807	1224	10 1/2	123	1	..	..	24986
June ,, ...	44148	1281	6 5/8	1181	6 3/4	..	..	23255
September ,, ...	32611	1181	8 5/8	884	6 1/2	..	..	24480
December ,, ...	33622	1178	8 3/8	752	5 1/4	..	..	22680
March, 1889.....	36117	1358	8 7/8	417	2 3/4	..	..	25793
June ,, ...	49279	1415	6 7/8	1392	6 3/4	..	..	22889
September ,, (14 weeks)	37634	1380	8 3/4	929	5 5/8	..	..	26885
December ,, ...	39972	1358	8 1/8	1034	6 1/8	..	..	24067
March, 1890 (12 weeks)	40929	1391	8 1/2	811	4 3/4	..	..	32937
June ,, (14 weeks)	60371	1662	6 1/2	1802	7 1/8	..	..	29680
	1480004	49112	7 7/8	26929	..	254	..	..
Less Loss.....				254	..			
Leaves Net Profit.....				26675	4 1/4			

MANCHESTER FURNISHING TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
October, 1876 (14 weeks)	3036	188	1 2¾	..	..	57	0 4	2843
January, 1877	2908	217	1 6	5	0 0⅜	..	..	2571
April „	3813	250	1 3¾	37	0 3	..	..	2423
July „	3426	216	1 3⅛	..	..	24	0 1⅝	2274
October „	4166	242	1 1⅝	45	0 2⅜	..	..	2343
January, 1878	4059	276	1 4⅜	7	0 0⅛	..	..	2286
April „	4397	310	1 4¾	121	0 6	..	..	2245
July „	4141	291	1 4¾	14	0 0⅞	..	..	2272
October „	4320	307	1 5	29	0 1⅛	..	..	2279
January, 1879	4516	277	1 2⅜	..	..	24	0 1¼	2421
March „ (10 weeks)	3624	218	1 2	26	0 1⅜	..	..	2837
June „ (14 weeks)	5249	325	1 3⅛	30	0 1⅜	..	..	3074
September „	4291	280	1 3½	..	..	33	0 1⅞	3163
December „	5197	285	1 1	37	0 1¾	..	..	3524
March, 1880	6530	327	1 0	29	0 1	..	..	4013
June „	5144	347	1 4½	4	0 0¼	..	..	4318
September „	5922	313	1 0⅜	102	0 4⅜	..	..	3969
December „	6647	330	0 11⅝	269	0 9⅜	..	..	4307
March, 1881	6209	333	1 0⅛	..	..	14	0 0½	4146
June „	6085	318	1 0⅛	91	0 3½	..	..	4496
Sept. „	5736	320	1 1⅜	..	..	29	0 1⅛	4039
December „	6814	322	0 11½	123	0 4½	..	..	3971
March, 1882	6783	351	1 0⅜	115	0 4	..	..	4122
June „	6786	344	1 0⅛	82	0 2⅞	..	..	3827
Sept. „	7293	419	1 1⅜	61	0 2	..	..	3721
Dec. „	8159	401	0 11½	..	..	39	0 1⅜	3630
March, 1883	7812	439	1 1⅜	95	0 2⅞	..	..	3845
June „	7936	455	1 1⅜	99	0 2⅞	..	..	4308
September „	7954	472	1 2⅛	32	0 0⅞	..	..	4337
December „	11102	512	0 11	197	0 4⅞	..	..	4274
March, 1884	9850	540	1 1⅛	204	0 4⅞	..	..	5100
June „ (14 weeks	11280	595	1 0⅝	..	..	26	0 0½	5170
September „	11002	566	1 0⅛	205	0 4⅝	..	..	5072
December „	12179	552	0 10⅞	290	0 5⅝	..	..	5433
March, 1885	13126	626	0 11⅝	329	0 6	..	..	5973
June „	12228	611	0 11⅞	123	0 2⅜	..	..	6145
September „	12539	582	0 11⅛	166	0 3⅛	..	..	5771
December „	13345	596	0 10⅝	275	0 4⅞	..	..	5817
March 1886	13929	624	0 10⅝	207	0 3⅛	..	..	5773
June „	15251	684	0 10¾	374	0 5⅞	..	..	6234
September „	15277	650	0 10	182	0 2⅞	..	..	5654
December „	17883	699	0 9⅜	366	0 4⅞	..	..	6041
March, 1887	17284	676	0 9¾	277	0 3⅞	..	..	7124
June „	18037	758	0 10	361	0 4¾	..	..	7335
September „	16546	956	1 1⅜	79	0 1⅛	..	..	8453
December „	21065	1107	1 0⅛	229	0 2⅛	..	..	9497
March, 1888	20315	1196	1 2⅛	168	0 1⅝	..	..	9372
June „	21172	1189	1 1⅜	..	..	90	0 1	8851
September „	20205	1158	1 1⅜	138	0 1⅝	..	..	7944
December „	23792	1212	1 0⅛	330	0 3⅞	..	..	8548
March, 1889	21172	1230	1 1⅛	33	0 0⅜	..	..	9177
June „	23523	1233	1 0⅛	494	0 5	..	..	8985
September „ (14 weeks)	23318	1229	1 0⅛	220	0 2⅛	..	..	7990
December „	28150	1230	0 10⅝	689	0 5⅞	..	..	9770
March, 1890 (12 weeks)	24872	1194	0 11⅛	463	0 4⅝	..	..	11021
June „ (14 weeks)	33177	1430	0 10⅛	655	0 4⅝	..	..	11473
	640572	32838	1 0½	8507	..	336	..	..
		Less Loss		336	..			
		Leaves Net Profit		8171	0 3			

NEWCASTLE BRANCH GROCERY AND PROVISION TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
April, 1876	131789	1791	0 3¼	1768	0 3½	..	..	26712
July „	124393	1938	0 3⅝	1161	0 2⅛	..	..	32241
October, 1876 (14 weeks)	152237	2036	0 3½	766	0 1½	..	..	40908
January, 1877	120825	1962	0 3⅞	836	0 1½	..	..	34591
April „	132575	2053	0 3 11/16	1389	0 2	..	..	30086
July „	141614	1990	0 3⅜	1218	0 2 1/16	..	..	22718
October „	140902	2001	0 3⅜	919	0 1	..	..	29594
January, 1878	126692	2169	0 4 1/16	613	0 1⅛	..	..	28996
April, „	120300	2028	0 4	983	0 2	..	..	26039
July, „	112256	1898	0 4	647	0 1⅝	..	..	20350
October, „	111069	1679	0 3	903	0 1⅝	..	..	24383
May, 1879	113972	1797	0 3¾	635	0 1⅛	..	..	22789
March „ (10 weeks)	85774	1315	0 3⅝	2648	0 7⅜	..	..	25284
June „ (14 weeks)	113673	1886	0 3⅞	1470	0 3	..	..	21031
September „	119668	1697	0 3⅜	..	..	167	0 0¼	29290
December „	145993	1925	0 3⅛	3283	0 5⅜	..	..	49145
March, 1880	146614	2064	0 3⅜	1023	0 1⅜	..	..	40786
June „	145848	1905	0 3⅛	734	0 1¼	..	..	25906
September „	142258	1858	0 3⅛	1185	0 2	..	..	33883
December „	153944	2041	0 3⅛	1694	0 2⅜	..	..	44393
March, 1881	152124	2254	0 3⅞	2699	0 4¼	..	..	41400
June, „	169581	2098	0 2⅞	1759	0 2⅜	..	..	48127
Sept. „	191300	2187	0 2¾	3600	0 4½	..	..	54764
Dec., „	190382	2382	0 3	1238	0 1½	..	..	54648
March, 1882	181358	2486	0 3½	1029	0 1¼	..	..	49740
June „	190600	2418	0 3⅛	2488	0 3⅛	..	..	49724
Sept. „	204549	2519	0 2⅞	3520	0 4⅛	..	..	52044
Dec. „	218500	2675	0 2⅞	1704	0 1⅞	..	..	65330
March, 1883	196039	2741	0 3¼	1467	0 1⅝	..	..	66285
June, „	208842	2751	0 3⅛	3226	0 3⅝	..	..	65103
Sept. „	230513	2582	0 2⅝	3011	0 3⅜	..	..	44265
Dec. „	236203	2711	0 2⅜	2772	0 2⅞	..	..	55152
March, 1884	222807	2806	0 3	2954	0 3⅜	..	..	55878
June, „ (14 weeks)	240710	2944	0 2⅞	2468	0 2⅝	..	..	41760
Sept. „	235087	2822	0 2⅜	4468	0 4½	..	..	48207
Dec. „	232199	2823	0 2⅜	2561	0 2⅝	..	..	65158
March, 1885	216816	2996	0 3¼	2918	0 3½	..	..	65563
June „	232467	3145	0 3⅜	4953	0 5⅛	..	..	79425
Sept. „	240409	2888	0 2⅜	3462	0 3⅝	..	..	70555
Dec. „	246850	3046	0 2⅝	3094	0 3	..	..	53546
March, 1886	220254	2827	0 3	3066	0 3½	..	..	46224
June „	223551	2968	0 3⅛	4453	0 4¾	..	..	55673
Sept. „	244049	3127	0 3	5281	0 5⅛	..	..	68142
Dec. „	262024	3429	0 3¼	5994	0 5⅝	..	..	71265
March, 1887	229481	3698	0 3¾	4094	0 4¼	..	..	72331
June „	238169	3608	0 3⅜	2198	0 2⅛	..	..	62551
Sept. „	248900	3250	0 3⅛	2136	0 2	..	..	63501
Dec „	249598	3664	0 3½	2598	0 2⅜	..	..	59632
March, 1888	232299	3387	0 3⅛	3053	0 3⅛	..	..	58962
June „	242155	3545	0 3	2127	0 2	..	..	51199
Sept. „	264313	3450	0 3⅛	6454	0 5¾	..	..	71300
Dec. „	288761	3743	0 3	7509	0 6⅛	..	..	65838
March, 1889	248673	3627	0 3⅜	1668	0 1½	..	..	52708
June „	261128	3570	0 3¼	5826	0 5½	..	..	42024
Sept. „ (14 weeks)	291085	3657	0 3	4407	0 3⅜	..	..	47743
Dec., „	299565	4093	0 3½	6520	0 5⅜	..	..	55671
March, 1890 (12 weeks)	243911	3421	0 3½	5001	0 4⅛	..	..	45135
June „ (14 weeks)	302723	3983	0 3⅝	6216	0 4⅛	..	..	34939
	11410326	154324	0 3⅛	157862	..	167	..	..
	Less Loss			167	..			
	Leaves Net Profit			157695	0 3¼			

NEWCASTLE BRANCH DRAPERY TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
April, 1876	6990	318	0 10 7/8	117	0 4	8696
July „	9534	419	0 10 1/2	120	0 3	8087
October „ (14 weeks)	12052	456	0 9 11/13	444	0 8 5/8	10942
January, 1877	11320	535	0 11 1/8	115	0 2 7/13	11525
April „	12394	537	0 10 3/8	386	0 7 7/13	11321
July „	13707	555	0 9 3/4	331	0 5 5/8	11142
October „	12719	545	0 10 1/4	114	0 2 1/8	12068
January, 1878	10739	574	1 0 7/8	168	0 3 3/8	11635
April „	10539	554	1 0 3/8	213	0 4 3/4	11040
July „	10563	550	1 0 1/4	2	..	9678
October „	11834	515	0 10 3/8	294	0 5 5/8	10331
January, 1879	11225	540	0 11	103	0 2 1/8	10463
March „ (10 weeks)	8592	448	1 0 1/2	224	0 6 1/2	11404
June „ (14 weeks)	11025	583	1 0 5/8	213	0 4 5/8	9531
Sept. „	11111	544	0 11 5/8	227	0 4 7/8	10576
Dec. „	13946	578	0 9 7/8	207	0 3 3/8	11590
March, 1880	14399	622	0 10 3/8	548	0 9 1/8	15114
June „	13770	598	0 10 1/4	751	1 1	15773
Sept. „	12599	624	0 11 1/4	566	0 10 3/4	16992
Dec. „	15211	650	0 10 1/4	341	0 5 1/4	16171
March, 1881	15827	666	0 10	601	0 9 1/8	15779
June „	16949	654	0 9 1/4	785	0 11	14972
Sept. „	16499	657	0 9 5/8	445	0 6 1/4	15812
Dec. „	19806	679	0 8 5/8	508	0 6 1/8	16075
March, 1882	18605	711	0 9	943	1 0 1/2	16677
June „	20018	727	0 8 5/8	720	0 8 1/2	16358
Sept. „	19620	725	0 8 7/8	659	0 8	16067
Dec. „	26214	812	0 7 3/8	1334	1 0 1/2	15754
March, 1883	22157	837	0 9	829	0 8 1/4	17957
June „	24710	830	0 8	1259	1 0 1/4	15699
Sept. „	22703	842	0 8 7/8	925	0 9 3/4	18258
Dec. „	29784	878	0 7	1486	0 11 1/4	16594
March, 1884	26436	907	0 8 1/4	991	0 9	18875
June „ (14 weeks)	29550	1011	0 8 1/4	1125	0 9 1/4	18062
Sept. „	26800	1021	0 9 3/8	862	0 7 3/8	18470
Dec. „	35559	1044	0 7	1525	0 10 1/4	18906
March, 1885	33946	1062	0 7 1/4	1651	0 11 5/8	20675
June „	35822	1114	0 7 3/8	1671	0 11 3/8	22002
Sept. „	33776	1104	0 7 3/4	1801	1 0 3/4	22923
Dec. „	39157	1318	0 8	1783	0 10 1/4	24084
March, 1886	34600	1274	0 8 3/4	1616	0 11 1/4	23606
June „	39560	1304	0 7 7/8	2093	1 0 3/8	22461
Sept. „	34858	1261	0 8 5/8	1743	1 0	26253
Dec. „	43415	1503	0 8 1/4	2110	0 11 5/8	28645
March, 1887	33556	1454	0 10 3/8	1414	0 10 1/8	29452
June „	36689	1514	0 9 5/8	1369	0 8 1/4	26594
Sept. „	35716	1378	0 9 1/4	1807	1 0 1/4	27540
Dec. „	38752	1522	0 9 3/4	1255	0 7 1/4	25753
March, 1888	37258	1464	0 9 3/4	1778	0 11 3/8	28326
June „	41885	1527	0 8 3/4	1437	0 8 1/4	27390
Sept. „	36675	1416	0 9 1/4	1620	0 10 1/4	26756
Dec. „	46156	1566	0 8 1/4	1538	0 7 5/8	30177
March, 1889	40867	1647	0 9 5/8	1179	0 6 5/8	33303
June „	46641	1642	0 8 3/8	1787	0 9 1/4	28639
Sept. „ (14 weeks)	45285	1526	0 8	2247	0 11 3/8	29344
Dec. „	52650	1700	0 7 1/4	2387	0 10 7/8	32799
March, 1890 (12 weeks)	51449	1641	0 7 5/8	2093	0 9 3/8	35387
June „ (14 weeks)	61451	1769	0 6 1/2	3518	1 1	31444
	1508670	55452	0 8 3/4	60375	0 9 1/2	...

NEWCASTLE BRANCH BOOT AND SHOE AND FURNISHING TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Loss.		Stocks
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
April, 1876.....	5058	149	0 $7\frac{1}{16}$	..	..	110	0 $5\frac{3}{16}$	1154
July „	6969	159	0 $5\frac{1}{2}$	284	0 $9\frac{3}{8}$	..	..	1326
October „ (14 wks)	8006	179	0 $5\frac{3}{8}$	101	0 3	..	..	1180
January, 1877.....	5346	162	0 $7\frac{1}{4}$	131	0 $5\frac{7}{8}$	..	..	1505
April „	6211	170	0 $5\frac{1}{4}$	130	0 5	..	..	1584
July „	6871	175	0 $6\frac{1}{8}$	171	0 $5\frac{7}{8}$	..	..	1526
October „	8254	207	0 6	266	0 $7\frac{3}{4}$	..	..	1885
January, 1878.....	7089	208	0 $7\frac{1}{16}$	123	0 $4\frac{1}{8}$	..	..	2242
April „	6772	210	0 $7\frac{1}{4}$	123	0 $4\frac{3}{8}$	..	..	2577
July „	7252	226	0 $7\frac{3}{8}$	57	0 $1\frac{7}{8}$	..	..	3105
October „	7441	221	0 7	116	0 $3\frac{3}{4}$	..	..	2080
January, 1879.....	6910	223	0 $7\frac{3}{4}$	14	0 $0\frac{1}{2}$	..	..	3179
March „ (10 wks)	5138	193	0 9	25	0 $1\frac{1}{8}$	..	..	3708
June „ (14 wks)	6919	245	0 $8\frac{1}{4}$	83	0 $2\frac{7}{8}$	..	..	2587
September „	7733	233	0 $7\frac{1}{4}$	103	0 $3\frac{1}{8}$	..	..	2443
December „	7918	264	0 8	146	0 $4\frac{3}{8}$	..	..	4681
March, 1880.....	9101	345	0 9	241	0 $6\frac{1}{2}$	..	..	5200
June „	8053	325	0 $9\frac{3}{8}$	189	0 $5\frac{1}{2}$	..	..	5737
September „	8599	271	0 $7\frac{7}{8}$	174	0 $4\frac{3}{4}$	..	..	4815
December „	9215	335	0 $9\frac{3}{4}$	45	0 $1\frac{1}{8}$	..	..	5971
March, 1881	9592	329	0 $9\frac{1}{4}$	193	0 $4\frac{7}{8}$	..	..	4632
June „	10465	322	0 $7\frac{3}{8}$	38	0 $0\frac{7}{8}$	..	..	5262
Sept. „	10958	324	0 7	427	0 $9\frac{3}{4}$	..	..	4372
Dec. „	11976	332	0 $6\frac{3}{8}$	280	0 $5\frac{1}{2}$	..	..	4645
March, 1882	11988	351	0 7	240	0 $4\frac{3}{4}$	..	..	5110
June „	13064	351	0 $6\frac{3}{8}$	416	0 $7\frac{5}{8}$	..	..	5027
Sept. „	13672	376	0 $6\frac{1}{2}$	340	0 $5\frac{7}{8}$	..	..	5743
Dec. „	15763	449	0 $6\frac{3}{4}$	340	0 $5\frac{1}{2}$	..	..	6561
March, 1883	14318	480	0 8	298	0 $4\frac{5}{8}$	..	..	5988
June „	16635	477	0 $6\frac{7}{8}$	384	0 $5\frac{1}{2}$	..	..	6013
Sept. „	16146	491	0 $7\frac{1}{4}$	544	0 8	..	..	5377
Dec. „	18402	507	0 $6\frac{1}{2}$	664	0 $8\frac{3}{8}$	..	..	5817
March, 1884	16982	565	0 $7\frac{7}{8}$	335	0 $4\frac{1}{2}$	..	..	6508
June „ (14 wks)	19686	589	0 $7\frac{1}{8}$	737	0 $8\frac{7}{8}$	..	..	7740
Sept. „	18020	660	0 $8\frac{3}{4}$	352	0 $4\frac{5}{8}$	..	..	7723
Dec. „	20366	594	0 $6\frac{7}{8}$	493	0 $5\frac{3}{4}$	..	..	8266
March, 1885	20514	621	0 $7\frac{1}{4}$	660	0 $7\frac{5}{8}$	..	..	7877
June „	22600	636	0 $6\frac{3}{8}$	612	0 $6\frac{1}{2}$	..	..	8057
Sept. „	21646	668	0 $7\frac{1}{4}$	650	0 $7\frac{1}{8}$	..	..	8276
Dec. „	24357	858	0 $8\frac{3}{4}$	273	0 $2\frac{5}{8}$	..	..	11319
March, 1886	21856	846	0 $9\frac{1}{4}$	408	0 $4\frac{3}{8}$	..	..	10687
June „	26262	906	0 $8\frac{1}{4}$	439	0 4	..	..	11686
Sept. „	23452	897	0 $9\frac{3}{8}$	495	0 5	..	..	13662
Dec. „	25578	997	0 $9\frac{1}{4}$	277	0 $2\frac{1}{2}$	..	..	13442
March, 1887	21650	1020	0 $11\frac{1}{4}$	234	0 $2\frac{1}{2}$	..	..	12164
June „	22594	999	0 $10\frac{1}{2}$	195	0 2	..	..	13721
Sept. „	23988	909	0 9	454	0 $4\frac{1}{2}$	..	..	12909
Dec. „	22797	1001	0 $10\frac{1}{2}$	290	0 3	..	..	13974
March, 1888	24279	940	0 $9\frac{1}{4}$	403	0 $3\frac{7}{8}$	..	..	12619
June „	26027	1009	0 $9\frac{1}{4}$	401	0 $3\frac{3}{8}$	..	..	13398
Sept. „	24055	939	0 $9\frac{1}{4}$	615	0 $6\frac{3}{8}$	..	..	12181
Dec. „	26911	1090	0 $9\frac{3}{4}$	128	0 $1\frac{1}{8}$	..	..	14483
March, 1889	25130	1491	1 $2\frac{5}{8}$	..	..	81	0 $0\frac{3}{4}$	14897
June „	37504	1589	0 $10\frac{1}{8}$	177	0 $1\frac{1}{2}$	..	..	22895
Sept. „ (14 weeks)	37282	1550	0 $9\frac{7}{8}$	571	0 $8\frac{3}{8}$	..	..	19699
Dec. „	39741	1676	0 10	457	0 $2\frac{3}{4}$	..	..	19098
March, 1890 (12 weeks)	39383	1602	0 $9\frac{3}{4}$	648	0 $3\frac{7}{8}$	..	..	20901
June „ (14 weeks)	57529	1900	0 $7\frac{5}{8}$	1575	0 $6\frac{1}{2}$	..	..	23766
	997973	35941	0 $8\frac{1}{2}$	18565	..	191	..	..
		Less Loss.....		191	..			
		Leaves Net Profit.....		18374	0 $4\frac{3}{8}$			

LONDON BRANCH GROCERY TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.	Expenses.		Profit.		Stocks.
		Am'nt.	Rate.	Amount.	Rate.	
	£	£	s. d	£	s. d.	£
July, 1874	17472	440	0 6	331	0 4	6623
Oct. „	26734	587	0 5½	68	0 0⅝	11089
January, 1875	28179	515	0 4⅝	168	0 1⅝	7315
April „	25966	585	0 5⅝	157	0 0⅝	4329
July „	30695	597	0 4⅝	101	0 0¾	4877
October „	37126	597	0 3¾	553	0 3¼	5194
January, 1876	36965	586	0 3½	773	0 5	7219
April „	37273	734	0 4¾	609	0 4	4190
July „	43039	704	0 3⅝	895	0 5	5616
October „ (14 weeks)	55687	743	0 3½	1422	0 6½	1827
January, 1877	48880	845	0 4¼	1256	0 6½	12668
April „	46783	822	0 4$\frac{3}{16}$	641	0 3¼	8059
July „	50612	826	0 3⅝	218	0 1	6141
October „	62001	811	0 3½	925	0 3	6597
January, 1878	51019	824	0 3⅝	536	0 2	10511
April „	48716	815	0 4	605	0 3	9063
July „	49307	838	0 4	518	0 2	5933
October „	62502	831	0 3½	551	0 2	8239
January, 1879	55789	897	0 3⅝	714	0 3	8489
March „ (10 weeks)	39584	693	0 4½	482	0 2¾	7917
June „ (14 weeks)	59150	919	0 3⅝	837	0 3½	7833
September „	64211	952	0 3	1374	0 5½	9417
December „	69715	1006	0 3½	2546	0 8⅝	13594
March, 1880	60878	980	0 3¾	792	0 3½	11167
June, „	66697	948	0 3⅜	1086	0 3¾	9112
September „	76145	951	0 2⅝	1088	0 3⅜	12386
December „	71245	1187	0 4	593	0 2	20789
March, 1881	62706	1528	0 5⅜	87	0 0½	17204
June „	67500	1254	0 4⅜	610	0 2½	13227
September „	82056	1262	0 3⅜	864	0 2½	12045
December „	77486	1266	0 3⅜	583	0 1⅝	7394
March, 1882	64724	1234	0 4½	695	0 2½	6652
June, „	66084	1280	0 4¼	900	0 3¼	7615
September „	79407	1297	0 3⅜	1006	0 3	11636
December „	86602	1240	0 3⅜	1175	0 3½	10636
March, 1883	76284	1279	0 4	847	0 2⅜	7758
June „	76218	1274	0 4	748	0 2¼	8254
September „	92723	1288	0 3½	1482	0 3⅜	1353
December „	92528	1600	0 4½	1558	0 4	13282
March, 1884	79833	1440	0 4½	1357	0 4	12758
June „ (14 weeks)	88403	1515	0 4	969	0 2⅜	12422
September „	100541	1433	0 3⅜	1257	0 3	11849
December „	107186	1845	0 4½	1479	0 3½	18869
March, 1885	94496	1832	0 4⅝	2482	0 6½	18351
June „	107506	1797	0 4	2121	0 4⅝	16601
Sept. „	117471	1822	0 3⅜	1845	0 3⅜	20042
December „	126403	2034	0 3⅜	2653	0 5	24256
March, 1886	114451	2094	0 4⅝	3195	0 6⅝	19629
June „	118740	2019	0 4	1934	0 3½	15310
September „	139957	2032	0 3⅜	1694	0 2⅞	20453
December „	154756	2318	0 3½	2896	0 4⅝	24739
March, 1887	128667	2387	0 4⅝	1971	0 3⅜	27940
June „	152416	2686	0 4⅝	2130	0 3½	27026
September „	174234	2543	0 3½	2706	0 3⅝	32589
December „	187565	3720	0 4¾	2032	0 2⅝	47319
March, 1888	162077	3292	0 4⅝	2576	0 3½	37010
June „	171465	3323	0 4⅝	1390	0 1⅞	32296
September „	191133	3626	0 4¼	1841	0 2½	40973
December „	214604	3787	0 4⅝	3570	0 3½	41562
March, 1889	178797	3557	0 4¾	2291	0 3	37114
June „	199566	3727	0 4⅝	4227	0 5	39856
September, „ (14 weeks)	234344	3816	0 3½	1775	0 1¾	43068
December „	235671	4076	0 4⅜	2374	0 2⅜	44017
March, 1890 (12 weeks)	190477	3825	0 4½	3244	0 4	44947
June „ (14 weeks)	218790	4242	0 4⅝	2084	0 2½	37671
	6246187	107773	0 4⅛	88487	0 3⅜	....

LONDON BRANCH DRAPERY, BOOTS, AND FURNISHING TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Sales.			Expenses.		Profit.		Stocks.
	Drapery and Furnishing.	Boots and Shoes.	Total.	Amount	Rate.	Amount.	Rate.	
	£	£	£	£	s. d.	£	s. d.	£
September, 1880	....	3366	3366	72	0 5⅛	78	0 5½	1215
December ,, ...	1657	3134	4791	240	1 0	Loss 42	0 2	3805
March, 1881	2504	2909	5413	306	1 1½	do. 92	0 4	4524
June ,, ...	2653	3173	5826	307	1 0⅜	Profit 27	0 1	4730
September ,, ...	3110	3497	6607	311	0 11½	18	0 0⅝	5118
December ,, ...	4291	3869	8160	344	0 10⅜	196	0 5⅜	7054
March, 1882	4050	3027	7077	358	1 0⅜	72	0 2⅛	6776
June ,, ...	3582	3472	7054	393	1 1⅜	28	0 0⅞	6846
September ,, ...	4413	4382	8795	406	0 11	126	0 3⅜	7059
December ,, ...	4891	4748	9639	479	0 11⅞	86	0 2⅛	9524
March, 1883	5080	3566	8646	500	1 1⅜	87	0 2⅜	8854
June ,, ...	4766	4560	9326	577	1 2¾	91	0 2¼	9486
September ,, ...	5266	5099	10365	644	1 2⅞	22	0 0½	8130
December ,, ...	6642	4758	11400	691	1 2⅞	86	0 1¾	10011
March, 1884	7504	3939	11443	665	1 1⅝	27	0 0½	8992
June ,, (14 wks)	6306	4718	11024	688	1 3	158	0 3⅜	8308
September ,, ...	6601	6259	12860	703	1 1⅝	165	0 3	9689
December ,, ...	8592	4910	13502	751	1 1⅞	182	0 3½	9977
March, 1885	9173	4694	13867	802	1 1⅞	171	0 2⅞	10497
June ,, ...	8897	5729	14626	901	1 2⅜	91	0 1⅜	9936
September ,, ...	9875	6369	16244	834	1 0¼	89	0 1⅛	10642
December ,, ...	12503	5532	18035	1017	1 1⅞	333	0 4⅜	11502
March, 1886	12994	5402	18396	1065	1 1⅝	223	0 2⅝	11102
June ,, ...	12257	5939	18196	1127	1 2¾	15	0 0⅛	11034
September ,, ...	13005	7541	20546	1107	1 0⅝	166	0 1⅞	12366
December ,, ...	15493	7208	22701	1230	1 1	372	0 3⅞	13713
March, 1887	14158	5838	19996	1228	1 2⅜	Loss 65	0 0⅜	16022
June ,, ...	15689	6503	22192	1318	1 2½	Profit 97	0 1	15710
September ,, ...	13966	6850	20816	1294	1 2⅞	Loss 39	0 0⅜	17571
December ,, ...	19411	7156	26567	2013	1 6⅝	do. 231	....	18858
March, 1888	16955	5600	22555	2026	1 9½	do. 578	....	23161
June ,, ...	19660	7760	27420	2076	1 6⅝	Profit 17	0 0½	21613
September ,, ...	16832	7937	24769	2146	1 8½	Loss 697	0 6½	22798
December ,, ...	24441	8806	33247	2246	1 4⅛	do. 166	0 1½	24368
March, 1889	19404	7239	26643	2317	1 8⅜	do. 1133	0 10⅛	28405
June ,, ...	19978	8482	28460	2325	1 7½	do. 57	0 0⅜	27589
Sept. ,, (14 wks)	21310	8946	30256	2473	1 7⅞	do. 999	0 7⅝	29974
December ,, ...	22847	7986	30833	2531	1 7⅝	do. 1158	0 9	29019
March, 1890 (12 wks)	21059	7670	28729	2363	1 7⅝	do. 1854	1 3⅜	27096
June ,, (14 wks)	24701	9154	33855	2541	1 6	do. 90	0 0⅜	28843
	446516	227727	674243	45415	1 4½	Loss 4178	0 1⅜	....

CRUMPSALL BISCUIT WORKS TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	Production	Expenses.				Rate on Production.		Net Profit.		Stock
			Sundry.	Depreciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£
January, 1874 ..	2987	2878	604	60	87	751	26 1 10	5 2½	15	0 1½	1678
April „ ..	2814	2790	506	68	92	666	23 18 1	4 9	61	0 5⅝	1964
July „ ..	3450	3426	502	80	124	706	20 11 6	4 1¼	192	1 1¼	1967
October „ ..	3560	3538	585	87	132	804	22 13 11	4 6¼	loss 16	0 1	1887
January, 1875 ..	3365	3370	597	88	147	832	24 13 9	4 11	do. 9	0 0⅝	2029
April „ ..	3575	3500	598	79	91	768	21 18 6	4 4	265	1 5⅜	2137
July „ ..	3529	3260	610	80	99	789	24 4 0	4 10	208	1 2½	1656
October „ ..	3380	3301	676	81	90	847	25 13 2	5 1	94	0 6⅝	1433
January, 1876 ..	3180	3331	631	84	91	806	24 3 4	4 10	145	0 11	1538
April „ ..	3187	3093	956	90	101	1147	37 1 8	7 5¾	13	0 1	2222
July „ ..	4659	4918	888	98	111	1097	22 6 1	4 5	221	0 11½	1972
*October „ ..	4975	5039	789	103	113	1005	19 18 9	3 11	332	1 4	2295
January, 1877 ..	3045	3015	649	107	116	872	28 18 5	5 9	64	0 5	2867
April „ ..	3879	4177	704	109	129	942	22 11 0	4 6	44	0 2¾	3067
July „ ..	4442	4503	629	110	132	871	19 6 10	3 10	17	0 1	2919
October „ ..	5521	5158	740	111	118	969	18 16 0	3 9	115	0 5⅜	2591
January, 1878 ..	4176	4288	599	114	121	834	19 9 0	3 10¾	338	1 7 7/10	2961
April „ ..	4115	3732	665	114	127	906	24 6 0	4 10¼	313	1 6¼	3003
July „ ..	4217	4144	620	114	120	854	20 12 2	4 1	191	1 0	2608
October „ ..	5109	5229	821	114	118	1053	20 2 9	4 0¼	614	2 5¼	2524
January, 1879 ..	4112	4184	692	139	116	947	22 12 8	4 6¼	400	1 10¾	2506
†March „ ..	2953	2701	550	106	91	747	27 13 3	5 6⅜	181	1 4	2687
*June „ ..	4515	4512	812	148	124	1084	24 0 2	4 9⅜	168	0 8¾	2614
September „ ..	4716	4677	781	139	114	1034	22 2 2	4 5	303	1 3	2317
December „ ..	4439	4564	709	139	118	966	21 2 10	4 2¾	352	1 6	2335
March, 1880 ..	4277	4268	799	139	107	1045	24 9 8	4 10¾	loss 12	0 0⅝	2540
June „ ..	4550	4546	676	143	109	928	20 8 3	4 1	288	1 3¼	2439
September „ ..	5227	5107	750	145	109	1004	19 13 2	3 11¼	389	1 6¼	1948
December „ ..	5099	5148	760	145	104	1009	19 12 0	3 11	318	1 2¾	1793
March, 1881 ..	4024	4156	703	144	106	953	22 18 7	4 7	165	0 9¼	2038
June „ ..	4863	4727	767	144	111	1022	21 12 4	4 3⅞	45	0 2¼	2464
September „ ..	5823	6046	835	144	109	1088	18 0 0	3 7⅛	471	1 6¾	2183
December „ ..	5412	5345	751	144	103	998	18 13 2	3 8⅜	206	0 9¼	2105
March, 1882 ..	4733	4725	771	144	104	1019	21 11 4	4 3⅜	265	1 1⅜	1899
June „ ..	5064	4975	772	144	101	1017	20 8 0	4 1	164	0 7¼	2138
September „ ..	5860	5921	777	144	99	1020	17 4 6	3 5¼	632	2 1½	2089
December „ ..	5975	5957	775	146	97	1018	17 1 10	3 5	437	1 5½	1703
March, 1883 ..	4838	5245	756	147	103	1006	19 3 7	3 10	496	1 10⅜	2399
June „ ..	5407	5100	828	147	105	1080	21 3 6	4 2⅜	169	0 7⅝	2299
September „ ..	5915	5580	860	147	101	1108	19 17 1	3 11⅝	630	2 3	2076
December „ ..	5737	5787	784	148	99	1031	17 16 3	3 6⅝	786	2 8½	1896
March, 1884 ..	4740	4920	884	148	105	1137	23 2 2	4 7⅜	190	0 9¼	3201
*June „ ..	5409	5098	997	158	108	1263	24 15 5	4 11½	345	1 4⅜	2425
September „ ..	5828	5965	1094	177	117	1388	23 5 4	4 7¼	609	2 0⅝	2111
December „ ..	5572	5582	866	182	100	1148	20 11 4	4 1⅛	886	3 2	2129

* Fourteen Weeks. † Ten weeks.

CRUMPSALL BISCUIT WORKS TRADE.—*Con.*

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	Production	Expenses.				Rate on Production.		Net Profit.		Stocks
			Sundry.	Depreciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£
March, 1885 ..	4438	4600	1114	190	110	1414	30 14 9	6 1¾	94	0 4⅖	2707
June „ ..	5514	5218	1168	192	107	1467	28 2 9	5 7½	283	1 1	3154
September „ ..	5762	6250	1339	202	117	1658	26 10 6	5 3⅝	304	0 11⅝	3604
December „ ..	5765	5767	1173	202	120	1495	25 18 5½	5 2⅛	810	2 9⅜	3534
March, 1886 ..	5133	5092	1242	202	123	1567	30 15 5	6 1¾	48	0 2¼	3747
June „ ..	5494	5698	1322	207	119	1648	28 18 5	5 9⅖	115	0 5	3960
September „ ..	5920	6060	1695	207	124	2026	33 8 7⅜	6 8⅛	loss 258	0 10⅜	4479
December „ ..	6987	6035	1556	281	163	2000	33 2 9½	6 7½	34	0 1⅛	4207
March, 1887 ..	6311	6637	1409	285	161	1855	27 18 11⅜	5 7	215	0 8⅛	4285
June „ ..	6602	6085	1512	313	196	2021	33 9 9	6 8¼	loss 191	0 6⅝	4396
September „ ..	7466	8879	1664	340	188	2192	24 13 8⅞	4 11½	123	0 3⅝	5357
December „ ..	7935	7549	1786	340	200	2326	30 16 2⅞	6 1⅞	loss 150	0 4½	5518
March, 1888 ..	7058	7404	1540	340	215	2095	28 5 10⅞	5 7⅞	do. 223	0 7⅛	5958
June „ ..	7427	7265	1709	340	212	2261	31 2 5⅛	6 2⅝	180	0 5⅞	6468
September „ ..	8921	9188	1740	342	217	2299	25 0 5⅛	5 0	loss 195	0 5⅛	6903
December „ ..	8678	8298	1627	342	218	2187	26 7 1⅜	5 3½	16	0 0⅜	7633
March, 1889 ..	7689	8779	1602	342	229	2173	24 15 0½	4 11⅜	94	0 2⅞	8892
June „ ..	10285	8530	1713	342	226	2281	26 14 9¾	5 4⅞	469	0 10¼	7463
*Sept. „ ..	12420	14900	2178	343	247	2768	18 11 6¼	3 8⅛	142	0 2⅛	10655
December „ ..	11687	10627	1990	348	227	2565	24 2 8⅜	4 9¼	569	0 11⅝	9411
†March, 1890 ..	10870	10988	2147	322	225	2694	24 10 4⅛	4 10⅜	48	1	9436
*June „ ..	12179	10603	2433	376	234	3043	28 13 11¼	5 8⅞	721	1 2⅛	9538
	372789	371923	68777	11940	8897	89614	24 1 10⅜	4 9¾	16402	..	..
							Less Loss.....		1054	..	..
							Leaves Net Profit		15348	0 9⅞	..

* Fourteen Weeks. † Twelve Weeks.

HECKMONDWIKE BOOT AND SHOE WORKS TRADE.

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	Production.	Expenses.				Rate on Production.		Net Profit.		Net Loss.		Stocks.
			Sundry.	Depreciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£	s. d.	£
Sept., 1880.....	711	732	225	3	1	229	31 5 8	6 3	....	....	12	0 3⅞	1856
Dec., „	2349	2706	832	13	29	874	32 5 11½	6 5½	....	....	169	1 2⅝	2473
March, 1881.....	2808	3052	942	14	33	989	32 8 1	6 5⅞	....	....	196	1 3⅜	2293
June, „	1913	2478	800	14	42	856	34 10 10	6 10⅞	....	....	139	1 1⅜	3637
Sept., „	2807	2467	761	14	48	823	33 7 2½	6 8	....	....	244	1 11⅝	3136
Dec., „	3623	3420	1089	15	34	1138	33 5 5¾	6 7¾	....	....	29	0 2	2238
March, 1882.....	3548	3608	1125	16	46	1187	32 17 11⅜	6 6⅞	....	....	8	0 0⅛	2934
June, „	2986	2909	1102	16	42	1160	39 17 6½	7 11⅛	63	0 5⅛	....	....	3186
Sept., „	2923	3687	1161	17	48	1226	33 5 0¼	6 7⅜	....	....	94	0 6	3996
Dec., „	5145	5250	1653	17	47	1717	32 14 1	6 6⅛	....	....	124	0 5⅜	4016
March, 1883.....	3899	4130	1307	17	54	1378	33 7 3⅛	6 8	45	0 2⅛	....	....	5104
June, „	2901	2696	994	17	61	1072	39 15 3	7 11½	59	0 4⅜	....	....	5111
Sept., „	3948	3933	1325	17	60	1402	35 13 3⅜	7 1⅝	107	0 6¼	....	....	4585
Dec., „	5913	5618	1809	17	47	1873	33 6 9¼	6 8	92	0 3⅞	....	....	3950

March, 1884.....	4559	4662	1992	17	51	1460	31 6 4	6 3½	139	0 7½	....	....	4461
June, „ (14 weeks)..	3169	3179	1138	19	53	1210	38 1 3	7 7½	35	0 2⅝	....	....	3916
Sept., „	4334	4169	1373	16	61	1450	34 15 5	6 11⅜	....	....	131	0 7½	3131
Dec., „	6153	6128	2021	42	55	2118	34 11 3	6 10⅝	244	0 9½	....	....	3506
March, 1885.....	5595	5556	1859	42	58	1959	35 5 2	7 0⅝	6	0 0¼	....	....	3934¼
June, „	3878	3968	1526	44	67	1637	41 5 1	8 3	27	0 1½	....	....	4774
Sept., „	5254	5800	1895	45	68	2008	34 12 4⅞	6 11	71	0 2⅞	....	....	5056
Dec., „	7989	8487	2552	45	63	2660	31 6 10	6 3⅛	157	0 4⅜	....	....	5314
March, 1886.....	5893	5960	2153	45	77	2275	38 3 5	7 7½	....	....	66	0 2⅝	6171
June, „	3754	6171	1937	74	105	2116	34 5 9⅜	6 10½	3	0 1½	....	....	8402
Sept., „	5646	5395	1730	74	120	1924	35 13 3	7 1½	287	1 0½	....	....	8445
Dec., „	6988	5892	2047	74	103	2224	37 14 11	7 6½	151	0 5⅛	....	....	6869
March, 1887.....	4838	5335	1555	74	100	1729	32 8 2	6 5¾	....	....	188	0 6¾	6738
June, „	3936	3248	1271	74	96	1441	44 7 3¾	8 10½	40	0 2⅜	....	....	6155
Sept., „	5251	5039	1742	74	86	1902	37 14 10¾	7 6½	72	0 3¼	....	....	5454
Dec., „	8494	6019	2542	91	98	2731	45 7 5½	9 0⅝	263	0 7⅜	....	....	5382
March, 1888.....	6526	5325	2229	111	125	2465	46 5 9¾	7 2¾	....	....	29	0 1	7826
June, „	5293	4042	1943	118	140	2201	54 9 0¾	8 0½	257	0 11⅝	....	....	8116
Sept., „	8059	5958	2366	125	159	2650	44 9 6⅝	7 0¼	628	1 6⅜	....	....	9020
Dec., „	9429	7673	2883	134	164	3131	40 16 1¼	6 4¼	165	0 4½	....	....	10863
March, 1889.....	7413	5573	2194	138	162	2494	44 15 0¼	6 11⅞	977	3 0¾	....	....	946
June, „	6613	5178	2052	138	162	2352	45 8 5½	7 0	....	....	60	0 2⅜	9166
Sept., „ (14 weeks)..	7472	5880	2415	158	185	2758	46 18 1⅜	7 3½	1165	3 6	....	....	11153
Dec., „	8317	6268	2494	168	178	2840	45 6 2¼	7 1⅜	....	....	160	0 5	10280
March, 1890 (12 weeks)..	7955	6096	2362	163	180	2705	44 7 5½	6 8⅞	512	1 3⅜	....	....	10365
June „ (14 weeks)..	7617	6472	2393	192	207	2992	46 4 7⅞	7 2	....	....	114	0 3½	12466
	205799	190159	67839	2502	3515	78356	38 11 7⅛	7 8½	5556	....	1713	....	....
								Less Loss.....	1713	....			
								Leaves Net Profit..	3843	0 4⅜			

LEICESTER BOOT AND SHOE WORKS TRADE.

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	Production.	Expenses.			
			Sundry.	Depreciation.	Interest.	Total.
	£	£	£	£	£	£
January, 1874	3422	5190	1281	6	29	1316
April „	4506	10794	1512	7	42	1561
July „	7737	10120	2673	7	77	2757
October „	8065	8323	2671	10	101	2782
January, 1875	9148	9447	3191	12	122	3325
April „	11022	10381	3461	29	107	3597
July „	13987	14610	4320	34	127	4481
October „	15413	15349	4863	30	156	5049
January, 1876	13265	13362	4292	31	153	4476
April „	13602	11642	4190	31	151	4372
July „	15214	17921	5104	32	166	5302
*October „	19313	16419	6209	87	224	6520
January, 1877	14076	14122	5128	96	239	5463
April „	15870	14869	4968	102	268	5338
July „	19155	19653	6673	104	275	7052
October „	18551	18119	6042	105	247	6394
January, 1878	17564	14962	5674	105	233	6012
April „	15671	17902	5591	105	267	5963
July „	22014	18840	7423	106	259	7788
October „	18226	17154	5718	106	234	6058
January, 1879	17970	19043	7170	107	238	7515
†March „	12947	15196	5025	82	187	5294
*June „	21462	19585	6896	117	254	7267
September „	19379	19389	7325	109	216	7650
December „	23688	23576	8770	109	288	9167
March, 1880	20675	24392	8445	110	348	8903
June „	23571	20933	7004	110	310	7424
September „	18670	17610	6602	112	304	7018
December „	21739	21494	7815	112	279	8206
March, 1881	16827	20698	6775	112	298	7185
June „	26921	23471	8772	112	271	9155
September „	20723	21174	7834	112	261	8207
December „	23136	23807	9301	112	257	9670
March, 1882	19610	22487	8163	123	311	8597
June „	27552	25002	8808	122	276	9206
September „	26787	26702	9702	124	268	10094
December „	25149	25326	9715	126	258	10099
March, 1883	21493	22090	8278	124	312	8714
June „	25255	22929	8499	124	273	8896
September „	21777	20418	7880	124	228	8232
December „	23461	24777	9211	139	227	9577
March, 1884	21478	25093	8729	141	254	9124
*June „	32190	31418	11336	179	323	11838
September „	29282	25995	9946	252	371	10569
December „	24216	23827	9226	266	319	9811

* Fourteen weeks. † Ten weeks.

LEICESTER BOOT AND SHOE WORKS TRADE.—*Continued.*

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Rate on Production.		Net Profit.		Net Loss.		Stocks.
	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
January, 1874	25 6 8	5 0¾	..	..	8	0 0½	2579
April „	20 14 9	4 6½	108	0 5⅗	..	..	2504
July „	27 4 8	5 5½	111	0 3⅗	..	..	4366
October „	33 8 6	6 8¼	373	0 11⅛	..	..	5716
January, 1875	35 3 11	7 0¾	..	..	8	0 0¼	6466
April „	34 13 6	6 11½	..	..	175	0 3¼	6956
July „	30 13 5	6 1½	1153	1 5⅘	..	..	8809
October „	32 17 10	6 7	..	..	174	0 2⅜	10773
January, 1876	33 10 0	6 8½	108	0 2	..	..	9186
April „	37 10 11	7 6	226	0 4	..	..	10025
July „	29 11 8	5 11	165	0 2⅞	..	..	11149
*October „	39 14 1	7 11¼	629	0 7⅛⅝	..	..	12677
January, 1877	38 13 8	7 8¾	..	..	134	0 2¼	14131
April „	35 18 0	7 2½	..	..	23	0 0½	13013
July „	35 17 8	7 2½	496	0 6	..	..	15684
October „	35 5 8	7 0½	17	0 0⅜	..	..	16692
January, 1878	40 3 8	8 0¼	..	..	279	0 3⅛⅛	12522
April „	33 6 3	6 8	79	0 1¼	..	..	15104
July „	41 6 9	8 3½	665	0 7½	..	..	14416
October „	35 5 5	7 0½	807	0 10½	..	..	14495
January, 1879	39 9 3	7 10¾	24	0 3⅜	..	..	14515
†March „	34 16 9	6 11½	351	0 5½	..	..	16649
*June „	37 2 1	7 5	..	..	84	0 1	11456
September „	39 9 4	7 10¾	954	0 11⅜	..	..	10996
December „	38 17 6	7 9¼	424	0 4¼	..	..	24783
March, 1880	36 10 0	7 3½	..	..	156	0 1½	28388
June „	35 9 1	7 1½	760	0 8⅝	..	..	20380
September „	39 17 0	7 11⅜	248	0 3⅜	..	..	14662
December „	38 3 6	7 7½	..	..	1161	1 0⅞	15772
March, 1881	34 14 3	6 11½	934	0 10⅜	..	..	19945
June „	39 0 1	7 9½	63	0 0⅝	..	..	15048
September „	38 15 2	7 9	410	0 4⅝	..	..	16310
December „	40 12 2	8 1½	..	..	955	0 9⅜	15594
March, 1882	38 4 7	7 8	339	0 3⅜	..	..	20870
June „	36 16 5	7 4½	593	0 5⅝	..	..	15241
September „	37 16 0	7 6⅜	417	0 3⅞	..	..	13437
December „	39 17 6	7 11⅝	300	0 2¾	..	..	14192
March, 1883	39 8 11	7 10⅜	..	..	341	0 3⅜	18248
June „	38 15 11	7 9	£99	0 4½	..	..	18038
September „	40 6 4¼	8 0⅜	58	0 0⅝	..	..	10389
December „	38 13 0	7 8¼	74	0 0⅝	..	..	10384
March, 1884	36 7 2	7 3½	886	0 8⅜	..	..	15796
*June „	37 13 6	7 6⅜	1730	1 1⅝	..	..	19049
September „	40 13 2	8 1½	743	0 6¾	..	..	16274
December „	41 3 5	8 2¾	..	..	98	0 0⅞	17800

* Fourteen weeks. † Ten weeks.

LEICESTER BOOT AND SHOE WORKS TRADE.—*Continued.*

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	Production.	Expenses.			
			Sundry.	Depreciation.	Interest.	Total.
	£	£	£	£	£	£
March, 1885	26769	27876	9905	268	349	10522
June „	30729	30986	11109	269	332	11710
September „	26076	24106	9330	270	325	9925
December „	25890	25438	9502	270	309	10081
March, 1886	26923	32001	11057	276	340	11673
June „	41536	38021	13750	276	313	14339
September „	27976	26674	9718	276	298	10292
December „	26028	26007	10206	276	293	10775
March, 1887	30476	34990	11855	280	340	12475
June „	39272	34884	12881	280	298	13459
September „	27824	26078	10325	280	289	10894
December „	28845	28372	10834	280	303	11417
March, 1888	33925	36819	13032	280	366	13678
June „	45382	40206	15331	280	347	15958
September „	33018	30077	12194	280	335	12809
December „	31163	32853	12649	284	333	13266
March, 1889	37726	44479	15618	288	393	16299
June „	54156	47577	17674	292	387	18353
September „ (14 weeks)	44423	41322	16966	325	416	17707
December „	35962	42334	15740	331	437	16508
March, 1890 (12 weeks)	50644	51448	18281	307	470	19058
June „ (14 weeks)	65866	61114	22790	360	493	23643
	1631888	1628673	588958	10733	18174	617865

LEICESTER BOOT AND SHOE WORKS TRADE.—*Continued.*

From the time of commencing to keep a separate Account.

QUARTERLY ACCOUNTS.

Date.	Rate on Production.		Net Profit.		Net Loss.		Stocks.
	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
March, 1885	37 14 11	7 6½	517	0 4⅜	..	..	18374
June „	38 10 9	7 8⅜	1241	0 9⅜	..	..	17401
September „	41 3 5¼	8 2¾	296	0 2⅞	..	..	16116
December „	39 12 7	7 11⅛	1024	0 9⅝	..	..	15752
March, 1886	36 9 6	7 3½	688	0 5⅛	..	..	20081
June „	37 14 3	7 6½	2725	1 3⅝	..	..	16020
September „	38 11 8½	7 8½	2121	1 6⅛	..	..	16266
December „	41 8 7⅜	8 3⅜	525	0 4¾	..	..	17736
March, 1887	35 13 0⅜	7 1⅝	1337	0 10¼	..	..	23050
June „	38 11 7⅜	7 8½	2681	1 4½	..	..	19075
September „	41 15 3¼	8 4¼	964	0 8¼	..	..	17666
December „	40 4 9⅜	8 0½	1362	0 11¼	..	..	19118
March, 1888	37 2 11⅜	7 5⅛	1920	1 1½	..	..	23460
June „	39 13 9⅜	7 11½	3408	1 6	..	..	21218
September „	42 11 8⅜	8 6⅛	1147	0 8¼	..	..	20845
December „	40 7 7⅜	8 0⅝	..	..	22	0 0⅛	22496
March, 1889	36 12 10½	7 3⅞	2300	1 2⅝	..	..	28976
June „	38 11 6	7 8½	4311	1 7	..	..	25976
September „ (14 weeks)	42 17 0½	8 6¾	1430	0 7⅝	..	..	26394
December „	38 19 10⅜	7 9½	306	0 2	..	..	33265
March, 1890 (12 weeks)	37 0 10¼	7 4⅞	2053	0 9⅝	..	..	35110
June „ (14 weeks)	38 13 8¾	7 8¾	4700	1 5¼	..	..	35053
	37 18 8¾	7 7	51700	..	3618	..	..
	Less Loss		3618	..			
	Leaves Net Profit		48082	0 7			

DURHAM SOAP WORKS SUPPLIES,

From its Commencement,

Date.	Net Supplies.	Production.	Expenses. Sundry.	Depreciation.	Interest.	Total.
	£	£	£	£	£	£
October, 1874	161	813	32	38	4	74
January, 1875	1938	2163	98	37	81	216
April „	2510	2540	117	38	54	209
July „	2620	2143	128	39	49	216
October „	1874	2484	139	39	54	232
January, 1876	2260	2142	128	39	56	223
April „	2657	2772	113	39	55	207
July „	2560	2523	115	39	57	211
*October „	2550	2146	125	39	69	233
January, 1877	1782	2284	135	60	90	285
April „	2371	2621	134	71	105	310
July „	2801	2653	144	82	121	347
October „	2724	3388	196	89	108	393
January, 1878	3202	3251	210	94	114	418
April „	3085	3421	310	98	125	533
July „	3070	2660	191	98	125	414
October „	2947	2868	194	74	89	357
January, 1879	2633	2220	188	75	91	354
*March „	2032	2326	159	56	70	285
†June „	2582	2726	203	77	96	376
September „	2076	1912	169	72	92	333
December „	2213	2423	184	72	91	347
March, 1880	2388	2055	199	72	85	356
June „	3095	3040	175	72	81	328
September „	3216	2937	193	73	79	345
December „	3031	3372	214	72	78	364
March, 1881	2656	2757	227	73	93	393
June „	3254	3411	173	73	87	333
September „	3230	3340	199	73	97	369
December „	2731	2757	243	73	99	415
March, 1882	3336	3129	212	73	72	357
June „	3480	3815	212	73	98	383
September „	3282	2795	179	73	100	352
December „	2703	2765	192	73	80	345
March, 1883	3089	3479	197	73	83	353
June „	3237	3251	188	73	92	353
September „	4426	5099	267	73	85	425
December „	3999	4112	258	80	99	437
March, 1884	3855	3799	213	80	96	389
*June „	3854	3659	224	87	99	410
September „	4008	3625	214	80	82	376
December „	3502	3638	198	80	66	344
March, 1885	4369	4311	243	80	66	389
June „	4691	4652	255	80	75	410
September „	4722	4702	266	80	84	430
December „	4129	4329	353	80	75	508
March, 1886	3552	3727	253	80	71	404
June, „	4230	3979	286	80	61	427
September „	4344	3768	329	80	61	470
December „	3760	4309	755	80	59	894
March, 1887	3435	3394	341	80	70	491
June, „	3255	3066	312	80	59	451
September „	3963	3754	340	80	57	477
December „	4627	4674	523	80	58	661
March, 1888	4641	4513	538	80	70	688
June, „	4404	4193	448	80	74	602
September „	6129	6245	460	80	64	604
December „	6582	7175	470	80	61	611
March, 1889	5378	5657	551	82	80	713
June, „	6145	6089	410	82	76	568
*Sept'mb'r „	7284	6410	476	82	75	633
December „	5886	5830	384	82	68	534
‡March, 1890	6069	5914	432	75	68	575
*June „	7522	6764	459	88	64	611
	228087	228769	16473	4635	5043	26151

* Fourteen Weeks. † Ten Weeks. ‡ Twelve Weeks.

EXPENSES, PROFIT, AND STOCKS,

QUARTERLY ACCOUNTS.

Date.	Rate on Production. Per cent.	Rate on Production. Per £.	Net Profit. Amount.	Net Profit. Rate.	Net Loss. Amount.	Net Loss. Rate.	Stocks.
	£ s. d.	s. d.	£	s. d.	£	s. d.	£
October, 1874 ..	9 2 0	1 9¾	..	..	108	13 4¾	804
January, 1875 ..	9 19 8	1 11¾	127	1 3½	..	..	1809
April, „ ..	8 4 7	1 7¾	82	0 7½	..	..	1007
July „ ..	10 1 7	2 0½	182	1 4	..	..	1010
October „ ..	9 6 0	1 10¼	92	0 11¾	..	..	1751
January, 1876 ..	10 8 2	2 1	..	..	120	1 0¾	1303
April, „ ..	7 9 4	1 6	11	0 1	..	..	1462
July, „ ..	8 7 3	1 8	97	0 9	..	..	2262
*October, „ ..	10 7 1	2 2	..	..	23	0 2	3029
January, 1877 ..	12 9 7	2 6	106	1 2½	..	..	3871
April, „ ..	11 16 7	2 4½	..	..	177	1 5⅞	3401
July, „ ..	13 1 7	2 7½	105	0 9	..	..	4353
October, „ ..	11 12 0	2 4½	..	..	147	1 1	3289
January, 1878 ..	12 17 2	2 7	..	..	88	0 6 9/16	3721
April, „ ..	15 11 7	3 1	..	..	142	0 10½	4495
July, „ ..	15 11 3	3 1	..	..	283	2 2½	3947
October, „ ..	12 8 11	2 5⅜	..	..	109	0 11	3374
January, 1879 ..	15 18 11	3 2¼	..	..	136	0 2⅔	3130
*March, „ ..	12 4 9	2 5	77	0 7⅝	..	..	2705
†June, „ ..	13 15 10	2 9	..	..	..	..	3657
September, „ ..	17 8 3	3 5¾	..	..	238	2 5¾	3536
December, „ ..	14 6 4	2 10½	46	0 4½	..	..	3769
March, 1880 ..	17 6 5	3 5⅝	7	0 0⅝	..	..	2680
June, „ ..	10 15 1	2 1⅞	..	..	63	0 5	2786
September, „ ..	11 14 11	2 4½	170	1 1⅞	..	..	2238
December, „ ..	10 15 10	2 2	24	0 1⅜	..	..	3571
March, 1881 ..	14 5 1	2 10½	85	0 7⅜	..	..	3426
June, „ ..	9 15 3	1 11⅝	117	0 8⅝	..	..	3466
September, „ ..	11 0 11	2 2½	..	..	16	0 1	5369
December, „ ..	15 1 0	3 0⅝	..	..	54	0 4⅜	3707
March, 1882 ..	11 8 2	2 3⅜	57	0 4⅜	..	..	2834
June, „ ..	10 0 9	2 0	..	..	113	0 7	5405
September, „ ..	12 11 10	2 6⅞	40	0 3⅜	..	..	3807
December, „ ..	12 9 6	2 6	..	..	83	0 7½	2628
March, 1883 ..	10 2 10	2 0¼	..	..	38	0 2½	5047
June, „ ..	10 17 1	2 2	44	0 3½	..	..	3838
September, „ ..	8 6 9¾	1 8	16	0 0⅝	..	..	3990
December, „ ..	10 12 6½	2 1½	40	0 2½	..	..	5185
March, 1884 ..	10 4 9	2 0⅞	29	0 1¾	..	..	4594
*June, „ ..	11 4 1	2 2⅞	..	..	53	0 3⅜	4323
September, „ ..	10 7 5	2 0⅞	59	0 3⅞	..	..	2936
December, „ ..	9 9 1	1 10⅜	62	0 4	..	..	3489
March, 1885 ..	9 0 5½	1 9⅜	65	0 3½	..	..	3151
June, „ ..	8 16 3	1 9⅛	294	1 5⅞	..	..	6282
September, „ ..	9 2 10¾	1 9⅞	292	1 2⅞	..	..	4458
December, „ ..	11 14 8½	2 4⅛	256	1 2⅜	..	..	4361
March, 1886 ..	10 16 9½	2 2	288	1 6½	..	..	3373
June, „ ..	10 14 7½	2 1⅞	209	0 11¾	..	..	3198
September, „ ..	12 9 5⅝	2 5⅞	216	0 11¾	..	..	2707
December „ ..	20 4 5¾	4 1⅝	28	0 1⅜	..	..	3999
March, 1887 ..	14 9 4	2 10⅝	210	1 2⅜	..	..	4685
June, „ ..	14 14 2½	2 11½	92	0 6¾	..	..	3756
September, „ ..	12 14 1½	2 6½	183	0 11	..	..	2795
December, „ ..	14 2 10	2 9⅞	39	0 2	..	..	3637
March, 1888 ..	15 4 10¾	3 0½	79	0 4	..	..	3833
June, „ ..	14 7 1⅝	2 10½	93	0 5	..	..	3803
September, „ ..	9 13 5½	1 11¼	223	0 8⅝	..	..	2901
December, „ ..	8 10 3¾	1 8⅝	195	0 7	..	..	5448
March, 1889 ..	12 12 0⅞	2 6⅝	..	..	365	1 4½	4936
June, „ ..	9 6 6⅜	1 10⅜	208	0 8	..	..	5073
*Sept'mb'r, „ ..	9 17 6	1 11⅝	124	0 4	..	..	4371
December, „ ..	9 3 2½	1 9⅞	267	0 10⅞	..	..	4938
‡March, 1890 ..	9 14 5⅜	1 11½	94	0 3⅝	..	..	4749
*June, „ ..	9 0 7⅞	1 9⅝	259	0 8½	..	..	4566
	11 8 7⅜	2 3⅜	5389	..	2356	..	..
	Less Loss		2356	..			
	Leaves Net Profit		3033	0 3½			

* Fourteen weeks. † Ten weeks. ‡ Twelve weeks.

BATLEY WOOLLEN MILL TRADE.

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	Production.	Expenses.				Rate on Production.		Net Profit.		Net Loss.		Stocks.
			Sundry.	Depreciation.	Interest	Total.	Per cent.	Per £	Amount	Rate.	Amount	Rate.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£	s. d.	£
March, 1887	..	184	318	2	1	321	174 9 1½	34 10⅝	....	....	228	....	487
June, 1887	320	2354	1006	15	21	1042	44 5 3⅜	8 10⅛	....	....	181	11 3¾	3569
Sept., ,, ...	1042	2449	1074	54	59	1187	48 9 4½	9 8¼	25	0 5¾	....	....	6010
Dec., ,, ...	1116	3508	1322	60	83	1465	41 15 2¾	8 4⅛	....	....	99	1 9⅛	8061
March, 1888	3059	2502	1241	63	99	1403	56 1 6	11 2½	....	....	311	2 0⅜	8249
June, ,, ...	2326	2361	1422	76	113	1611	68 4 8	13 7⅝	....	....	799	6 10⅜	8888
Sept., ,, ...	910	4403	1723	77	139	1939	44 0 9⅛	8 9⅝	....	....	156	3 5	13705
Dec., ,, ...	5295	4570	1677	81	162	1920	42 0 3⅛	8 4¾	....	....	363	1 4⅜	11876
March, 1889	5195	3602	1356	81	130	1567	43 10 0¾	8 8⅜	....	....	186	0 8½	10115
June, ,, ...	3523	3284	1383	82	128	1593	48 10 1⅞	9 8⅜	....	....	433	2 5⅜	10550
Sept., ,, (14 weeks)..	3131	2669	1438	84	144	1666	62 8 4⅜	12 5⅝	....	....	1152	7 4¼	11239
Dec., ,, ...	5340	2777	1528	86	132	1746	62 17 5⅜	12 6¾	....	....	2147	8 0½	7308
March, 1890 (12 weeks)..	3181	2740	1177	80	94	1351	49 6 1½	9 10¼	....	....	342	2 1¾	7284
June, ,, (14 weeks)..	3679	3264	1434	97	106	1637	50 3 0¾	10 0⅜	....	....	423	2 3⅞	6330
	38117	40667	18099	938	1411	20448	50 5 7½	10 0⅝	25	....	6825	....	....
									Less Profit ..		25	....	
									Leaves Net Loss.		6800	3 6½	

BATLEY READY-MADES DEPARTMENT.

From its Commencement.

QUARTERLY ACCOUNTS.

Date.	Net Supplies.	Expenses.				Net Loss.		Stocks.
		Sundry.	Depreciation	Interest.	Total.	Amount.	Rate.	
	£	£	£	£	£	£	s. d.	£
December, 1888	318	392	13	8	413	182	11 $5\frac{1}{4}$	320
March, 1889.....	820	645	14	11	670	266	6 $5\frac{3}{4}$	415
June, 1889	1331	833	14	10	857	55	0 $9\frac{7}{8}$	528
September, 1889.....	892	656	15	15	686	190	4 3	620
December, 1889	1089	699	15	13	727	301	5 $6\frac{1}{4}$	495
March, 1890 (12 weeks)	1394	698	14	15	727	Profit56	0 $9\frac{5}{8}$	990
June, 1890 (14 weeks)	2169	753	17	17	787	,, 46	0 5	818
	8013	4676	102	89	4867	892	2 $2\frac{5}{8}$	....

LONGTON CROCKERY DEPOT—TRADE, &c.

Since its Commencement.

QUARTERLY ACCOUNTS.

Date.	Supplies.			Total Expenses.		Net Profit.		Loss.		Stocks.
	Selves.	Scottish.	Total.	Amount.	Rate.	Amount.	Rate.	Amount.	Rate.	
	£	£	£	£	s. d.	£	s. d.	£	s. d.	£
September, 1886	1355	....	1355	150	2 2½	....	....	6	1	282
December, „	2613	....	2613	222	1 8⅜	....	....	31	0 2¾	540
March, 1887	2728	43	2771	197	1 5⅜	17	0 1⅜	....	....	567
June, „	2818	42	2860	246	1 8⅝	35	0 2⅞	....	....	523
September, „	2881	71	2952	199	1 4⅛	63	0 5⅛	....	....	509
December, „	3498	148	3646	234	1 3¼	64	0 4⅜	....	....	596
March, 1888	3543	153	3696	232	1 3	95	0 6⅝	....	....	736
June, „	3761	154	3915	261	1 4	63	0 3¾	....	....	730
September, „	3219	370	3589	257	1 5⅛	93	0 6⅛	....	....	831
December, „	3950	395	4345	250	1 1¾	102	0 5⅝	....	....	1116
March, 1889	4074	295	4369	230	1 0⅝	53	0 2⅞	....	....	1122
June, „	3877	363	4240	284	1 4	194	0 10⅞	....	....	1472
September, „ (14 weeks)	4444	211	4655	285	1 2⅝	128	0 6½	....	....	1152
December, „	5071	314	5385	375	1 4⅝	158	0 7	....	....	1929
March, 1890 (12 weeks)	4729	521	5250	340	1 3½	159	0 7¼	....	....	2381
June, „ (14 weeks)	5446	165	5611	467	1 7⅞	47	0 2	....	....	2568
	58007	3245	61252	4229	1 4½	1271	....	37	....	....
				Less Loss		37	....			
				Leaves Net Profit		1234	0 4¾			

MANCHESTER GROCERY AND PROVISION SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1875 (8 quarters)	1110155	11716	0 2 1/2	11986	0 2 1/2	71360
„ 1876	1476536	14701	0 2 3/8	19042	0 3	56487
„ 1877 (53 weeks)	1707637	17692	0 2 3/8	27993	0 3 7/8	68205
„ 1878	1761017	16866	0 2 1/4	25745	0 3 3/8	53790
„ 1879	1683613	17373	0 2 3/8	26502	0 3 1/2	55319
December, 1879 (50 weeks)	1590007	16761	0 2 1/4	28826	0 4 1/2	71446
„ 1880	1998384	18911	0 2 1/4	30977	0 3 3/8	70091
„ 1881	2047210	19883	0 2 1/4	32460	0 3 1/2	87277
„ 1882	2298350	23666	0 2 3/8	30644	0 3 1/8	141191
„ 1883	2544409	28337	0 2 5/8	27455	0 2 1/4	109414
„ 1884 (53 weeks)	2457288	28522	0 2 3/4	24893	0 2 1/8	107524
„ 1885	2375945	27484	0 2 3/4	41757	0 4 3/8	92790
„ 1886	2571435	29777	0 2 3/4	41381	0 3 1/4	113620
„ 1887	2827624	32979	0 2 1/2	45516	0 3 1/2	129565
„ 1888	3092225	35914	0 2 3/8	49798	0 3 1/4	139849
„ 1889 (53 weeks)	3503196	39805	0 2 3/8	61452	0 4 1/8	112395
	35045031	380387	0 2 1/2	526427	0 3 1/2	....

MANCHESTER DRAPERY AND WOOLLEN CLOTH SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Jan., 1874 (1 quarter)	10575	348	0 8	201	0 4 9/13	....	....	11568
„ 1875	71290	3872	1 1	1244	0 4 1/8	....	....	36824
„ 1876	129486	7264	1 1 1/2	720	0 1 1/4	....	....	72408
„ 1877 (53 weeks)	147083	9391	1 3 3/8	....	....	1420	0 2 1/4	69267
„ 1878	124918	8879	1 5 1/2	....	....	4144	0 7 7/8	48511
„ 1879	134746	8518	1 3 1/2	635	0 1 1/2	....	....	44439
Dec., 1879 (50 weeks)	126824	7817	1 2 1/2	1674	0 3 3/8	....	....	43225
„ 1880	139421	8511	1 2 3/4	2314	0 4	....	....	44105
„ 1881	132914	8168	1 2 1/2	1932	0 3 1/2	....	....	42203
„ 1882	143019	8337	1 1 3/4	3504	0 5 7/8	....	....	40854
„ 1883	156997	8976	1 1 3/4	4171	0 6 3/8	....	....	41865
„ 1884 (53 weeks)	186137	9587	1 0 1/2	5693	0 7 1/4	....	....	42433
„ 1885	194443	10815	1 0 3/4	5724	0 7	....	....	50190
„ 1886	217312	11143	1 0 1/4	5660	0 6 1/4	....	....	60405
„ 1887	232524	12224	1 0 1/4	3622	0 3 3/8	....	....	65807
„ 1888	255326	12893	1 0	4765	0 4 3/8	....	....	70560
„ 1889 (53 weeks)	283262	15011	1 0 3/8	4328	0 3 3/8	....	....	100126
	2686277	151254	1 1 1/2	46187	....	5564	....	....
Less Depreciation allowed, see Disposal of Profit Account, October, 1877		£4757						
„ Loss		5564		10321	....			
Leaves Net Profit				35866	0 3 1/8			

MANCHESTER WOOLLEN CLOTH DEPARTMENT.

From the time of commencing to publish a separate Account in Balance Sheet.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
December, 1884.....	20368	1221	1 $2\frac{3}{8}$	409	0 $4\frac{3}{4}$	....	....	4407
„ 1885.....	21210	1249	1 $2\frac{1}{8}$	336	0 $3\frac{3}{4}$	....	....	5242
„ 1886.....	22173	1417	1 $3\frac{1}{4}$	327	0 $3\frac{1}{2}$	....	....	6275
„ 1887.....	21820	1427	1 $3\frac{3}{8}$	....	....	2	....	6112
„ 1888.....	23047	1547	1 4	....	....	25	0 $0\frac{1}{4}$	8450
„ 1889 (53 weeks)..	26813	1844	1 $4\frac{1}{2}$	....	....	211	0 $1\frac{7}{8}$	12277
	135431	8705	1 $3\frac{3}{8}$	1072	....	238	....	....
		Less Loss		238	....			
		Leaves Net Profit..		834	0 $1\frac{3}{8}$			

MANCHESTER BOOT AND SHOE SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	d.	£	d.	£
January, 1874 (1 quarter)	5506	204	8¾	1	..	4715
„ 1875	37257	1129	7¼	748	4⅜	5197
„ 1876	53885	1326	5⅝	775	3⅝	7711
„ 1877 (53 weeks)	57307	1811	7½	586	2⅜	6082
„ 1878	58304	1975	8¼	786	3⅛	7935
„ 1879	59327	2192	8¾	767	3	10242
December, 1879 (50 weeks)	55270	2135	9¼	752	3¼	10964
„ 1880	62139	2387	9⅝	755	2⅞	11484
„ 1881	71382	2492	8⅝	842	2⅜	11377
„ 1882	76101	2583	8½	1246	3⅞	12564
„ 1883	86056	2382	8	1261	3½	12938
„ 1884 (53 weeks)	99694	3150	7½	1586	3¾	16576
„ 1885	106755	3596	8	1395	3⅛	16074
„ 1886	121432	3772	7⅜	2767	5⅜	16578
„ 1887	126099	4070	7⅝	3083	5¾	19727
„ 1888	139188	4864	8⅝	2940	5	22680
„ 1889 (53 weeks)	163002	5491	8	3772	5½	24067
	1378704	46059	8	24062	4⅛	..

MANCHESTER FURNISHING SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Loss.		Stocks.
		Amount	Rate.	Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£	s. d.	£
Jan., 1877 (27 weeks)	5944	405	1 4⅜	..	..	52	0 2	2571
„ 1878	15464	984	1 3¼	65	0 1	..	..	2286
„ 1879	17374	1185	1 4½	140	0 1⅞	..	..	2421
Dec., 1879 (50 weeks)	18361	1108	1 2⅜	60	0 0¾	..	..	3524
„ 1880	24243	1317	1 1	404	0 4	..	..	4307
„ 1881	24844	1293	1 0½	171	0 1⅝	..	..	3971
„ 1882	29021	1515	1 0½	219	0 1⅜	..	..	3630
„ 1883	34804	1878	1 0⅝	423	0 2⅞	..	..	4274
„ 1884 (53 weeks)	44311	2253	1 0	673	0 3¾	..	..	5433
„ 1885	51238	2415	0 11½	893	0 4⅜	..	..	5817
„ 1886	62340	2657	0 10⅝	1129	0 4½	..	..	6041
„ 1887	72932	3497	0 11½	946	0 3	..	..	9497
„ 1888	85484	4755	1 1½	546	0 1½	..	..	8548
„ 1889 (53 weeks)	96163	4952	1 0½	1436	0 3½	..	..	9770
	582523	30214	1 0⅜	7105	..	52	..	..
	Less Loss			52	..			
	Leaves Net Profit			7053	0 2⅞			

NEWCASTLE BRANCH GROCERY AND PROVISION SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks)	529244	7727	0 3 1/2	4531	0 2	34591
„ 1878	541783	8213	0 3 5/8	4139	0 1 3/4	28996
„ 1879	457597	7402	0 3 7/8	3168	0 1 3/8	22789
December, 1879 (50 weeks)	465108	6823	0 3 1/2	7234	0 3 5/8	49145
„ 1880	588664	7868	0 3 1/8	4636	0 1 7/8	44398
„ 1881	703337	8921	0 3	9296	0 3 1/4	54648
„ 1882	795007	10098	0 3	8741	0 2 5/8	65330
„ 1883	871597	10785	0 2 7/8	10476	0 2 7/8	55152
„ 1884 (53 weeks)	930803	11395	0 2 7/8	12451	0 3 1/8	65158
„ 1885	936542	12075	0 3	14422	0 3 5/8	53546
„ 1886	949878	12321	0 3	18794	0 4 3/8	71265
„ 1887	966148	14220	0 3 1/2	11026	0 2 5/8	59632
„ 1888	1027528	14125	0 3 1/4	19143	0 4 3/8	65838
„ 1889 (53 weeks)	1100451	14947	0 3 1/4	18421	0 4	55671
	10863687	146920	0 3 1/8	146478	0 3 1/8	..

NEWCASTLE BRANCH DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks)	39896	1728	0 10 3/8	796	0 4 3/4	11525
„ 1878	49559	2211	0 10 5/8	999	0 4 1/4	11685
„ 1879	44161	2159	0 11 3/8	612	0 3 1/4	10463
December, 1879 (50 weeks)	44674	2153	0 11 1/2	871	0 4 5/8	11590
„ 1880	55979	2494	0 10 3/8	2206	0 9 1/2	16171
„ 1881	69081	2656	0 9 1/2	2839	0 8 1/8	16075
„ 1882	84457	2975	0 8 3/8	3656	0 10 1/8	15754
„ 1883	99354	3387	0 8 1/2	4499	0 10 1/4	16594
„ 1884 (53 weeks)	118345	3983	0 8	4503	0 9 1/8	18906
„ 1885	142701	4598	0 7 3/4	6906	0 11 1/2	24084
„ 1886	152433	5342	0 8 3/4	7562	0 11 1/4	28645
„ 1887	144713	5868	0 9 1/2	5845	0 9 1/2	25537
„ 1888	161974	5973	0 8 3/4	6973	0 9 3/8	30177
„ 1889 (53 weeks)	185443	6515	0 8 3/8	7600	0 9 1/4	32799
	1392770	52042	0 8 7/8	54767	0 9 3/8	..

NEWCASTLE BRANCH BOOT AND SHOE AND FURNISHING SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Stocks.
		Amount	Rate.	Amount	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1877 (53 weeks).....	25379	649	0 6¼	406	0 3⅞	1505
„ 1878.....	28425	760	0 6⅝	690	0 5¾	2242
„ 1879.....	28375	880	0 7⅝	310	0 2⅝	3179
December, 1879 (50 weeks).....	27708	935	0 8	357	0 3	4681
„ 1880.....	34968	1276	0 8⅞	649	0 4⅝	5971
„ 1881.....	42991	1307	0 7½	938	0 5⅜	4645
„ 1882.....	54487	1527	0 6⅝	1336	0 5⅞	6561
„ 1883.....	65501	1955	0 7¼	1890	0 6⅞	5817
„ 1884 (53 weeks).....	75054	2408	0 7⅝	1917	0 6¼	8266
„ 1885.....	89117	2783	0 7⅝	2195	0 5⅞	11319
„ 1886.....	97148	3646	0 9	1619	0 4	13442
„ 1887.....	91029	3929	0 10¼	1173	0 3	13974
„ 1888.....	101272	3978	0 9⅝	1547	0 3⅝	14483
„ 1889 (53 weeks)	139607	6306	0 10¾	1124	0 1⅝	19098
	901061	32339	0 8½	16151	0 4¼	..

LONDON BRANCH GROCERY SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.	Expenses.		Profit.		Stocks.
		Amount.	Rate.	Amount.	Rate.	
	£	£	s. d.	£	s. d.	£
January, 1875 (3 qrs.).....	72385	1542	0 5⅜	567	0 1⅞	7315
„ 1876	130752	2365	0 4⅝	1584	0 2¼	7219
„ 1877 (53 weeks)	184879	3026	0 3⅝	4182	0 5⅝	12668
„ 1878	210415	3283	0 3⅜	2320	0 2⅝	10511
„ 1879	216314	3381	0 3¾	2388	0 2⅝	8489
December, 1879 (50 weeks)	282660	3570	0 3⅜	5239	0 5⅝	13594
„ 1880	274965	4066	0 3½	3559	0 3⅛	20789
„ 1881	289748	5310	0 4⅝	2149	0 1¾	7394
„ 1882	296767	5001	0 4	3776	0 3	10636
„ 1883	337753	5441	0 3⅞	4630	0 3¼	13282
„ 1884 (53 weeks)	375963	6233	0 4	5062	0 3¼	18869
„ 1885	445876	7485	0 4	9101	0 4⅞	24256
„ 1886	527904	8463	0 3¾	9719	0 4⅜	24739
„ 1887	652882	11336	0 4⅛	8839	0 3¼	47319
„ 1888	789279	14028	0 4⅓	9377	0 3	41562
„ 1889 (53 weeks)	848378	15176	0 4¼	10667	0 3	44017
	5836920	99706	0 4	83159	0 3⅜	....

LONDON BRANCH DRAPERY SALES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Sales.			Expenses.		Profit.		Stocks.
	Drapery and Furnishing	Boots and Shoes.	Total.	Amount	Rate.	Amount.	Rate.	
	£	£	£	£	s. d.	£	s. d.	£
December, 1880 (2 qrs.)	1657	6500	8157	312	0 9⅛	36	0 1	3805
„ 1881	12558	13448	26006	1268	0 11⅛	149	0 1⅛	7054
„ 1882	16936	15629	32565	1636	1 0	312	0 2¼	9524
„ 1883	21754	17983	39737	2412	1 2¼	286	0 1⅜	10011
„ 1884 (53 wks)	29003	19826	48829	2807	1 1⅜	532	0 2⅝	9977
„ 1885	40448	22324	62772	3554	1 1¼	684	0 2¼	11502
„ 1886	53749	26090	79839	4529	1 1¼	776	0 2¼	13718
„ 1887	63224	26347	89571	5853	1 3⅝	Loss 238	0 0⅝	18858
„ 1888	77888	30103	107991	8494	1 6⅞	„ 1424	0 3⅛	24368
„ 1889 (53 wks)	83539	32653	116192	9646	1 7⅞	„ 3347	0 6⅞	29019
	400756	210903	611659	40511	1 8⅞	Loss 2234	0 0⅝	....

CRUMPSALL BISCUIT WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Net Supplies.	Production.	Expenses.				Rate on Production.		Net Profit.		Stocks.
			Sundry.	Depreciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate per £.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£
Jan., 1874*..	2987	2878	604	60	87	751	26 1 10	5 2¼	15	0 1¼	1678
„ 1875..	13189	13124	2190	323	495	3008	22 18 5	4 7	228	0 4¼	2029
„ 1876..	13664	13392	2515	324	371	3210	23 19 5	4 9½	712	1 0⅝	1538
„ 1877†.	15866	16065	3282	398	441	4121	25 13 0	5 1⅞	630	0 9⅝	2867
„ 1878..	18018	18126	2672	444	500	3616	19 18 11	3 11⅞	514	0 6¾	2961
„ 1879..	17553	17289	2798	481	481	3760	21 15 0	4 4⅛	1518	1 9	2506
Dec., 1879‡.	16623	16454	2852	532	447	3831	23 5 8	4 7⅛	1004	1 2⅛	2335
„ 1880..	19153	19069	2985	572	429	3986	20 18 1	4 2⅝	983	1 0⅛	1793
„ 1881..	20122	20274	3056	576	429	4061	20 0 7	4 0	887	0 10¼	2105
„ 1882..	21632	21578	3095	578	401	4074	18 17 7	3 9¼	1498	1 4⅝	1703
„ 1883..	21897	21712	3228	589	408	4225	19 9 2	3 10⅝	2081	1 11	1896
„ 1884†.	21549	21565	3841	665	430	4936	22 17 9	4 6⅞	2030	1 10¼	2129
„ 1885..	21479	21830	4794	786	454	6034	27 12 9	5 6¼	1491	1 4⅜	3534
„ 1886..	23534	22885	5815	897	529	7241	31 12 9⅜	6 3⅞	Loss 61	0 0¼	4207
„ 1887..	28314	29100	6371	1278	745	8394	28 16 10½	5 9⅛	„ 3	..	5518
„ 1888..	32079	32155	6616	1364	862	8842	27 9 11½	5 5¼	„ 222	0 1⅝	7633
„ 1889†.	42081	42836	7483	1375	929	9787	22 16 11⅜	4 6¼	1273	0 7½	9411
	349740	350332	64197	11242	8438	83877	23 18 10	4 9⅜	‖ 14578	0 10	..

One quarter. † Fifty-three weeks. ‡ Fifty weeks. ‖ Profit.

LEICESTER BOOT AND SHOE WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

From the time of commencing to keep a separate Account.

IN YEARS.

YEAR ENDING	Net Supplies.	Production.	Expenses. Sundry.	Depreciation.	Interest	Total.	Rate on Production. Per cent.	Per £.	Net Profit. Amount	Rate.	Net Loss. Amount	Rate.	Stocks.
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£	s. d.	£
Jan., 1874*..	3422	5190	1281	6	29	1316	25 6 8	5 0¾	..	..	8	0 0½	2579
„ 1875..	29456	38684	10047	36	342	10425	26 18 11	5 4⅝	584	0 3⅛	..	..	6466
„ 1876..	53687	53702	16936	124	543	17603	32 15 6	6 6⅝	912	0 4	..	..	9186
„ 1877†..	62205	60104	20631	246	780	21657	36 0 6	7 2⅝	886	0 3½	..	..	14131
„ 1878..	71140	67603	23357	416	1023	24796	36 13 6	7 4	211	0 0⅞	..	..	12922
„ 1879..	73881	72939	25902	424	998	27324	37 9 9	7 6	1575	0 5⅛	..	..	14515
Dec., 1879‡..	77476	77746	28016	417	945	29378	37 15 8	7 6⅜	1645	0 5	..	..	24733
„ 1880..	84655	84429	29866	444	1241	31551	37 7 4	7 5⅜	..	..	309	0 0⅞	15772
„ 1881..	87607	89150	32682	448	1087	34217	38 8 8	7 8	452	0 1¼	..	..	15594
„ 1882..	99098	99517	36388	495	1113	37996	38 3 5	7 7½	1649	0 3⅞	..	..	14192
„ 1883..	91986	90214	33868	511	1040	35419	39 5 2	7 10⅛	190	0 0⅛	..	..	10384
„ 1884†..	107166	106333	39237	838	1267	41342	38 17 7	7 9½	3261	0 7⅛	..	..	17800
„ 1885..	109464	107806	39846	1077	1315	42238	39 3 7	7 10	3078	0 6⅞	..	..	15752
„ 1886..	122463	122703	44731	1104	1244	47079	38 7 4⅜	7 8	6059	0 11⅞	..	..	17736
„ 1887..	126417	124324	45895	1120	1230	48245	38 16 1⅜	7 9½	6344	1 0	..	..	19118
„ 1888..	143488	139955	53206	1124	1381	55711	39 16 1½	7 11½	6453	0 10⅜	..	..	22496
„ 1889†	172267	175712	65998	1236	1633	68867	39 3 10¼	7 10	8347	0 11⅝	..	..	33265
	1515878	1516111	547887	10066	17211	575164	37 18 8¾	7 7	41646	..	317	..	..
						Less Loss.....			317				
						Leaves Net Profit.....			41329	0 6½			

* One quarter. † Fifty-three weeks. ‡ Fifty weeks.

HECKMONDWIKE BOOT AND SHOE WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

From its Commencement.

IN YEARS.

YEAR ENDING	Net Supplies.	Production.	Expenses. Sundry.	Depreciation.	Interest	Total.	Rate on Production. Per cent.	Per £.	Net Profit. Amount	Rate.	Net Loss. Amount	Rate.	Stocks.
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£	s. d.	£
Dec., 1880*	3060	3438	1057	16	30	1103	32 1 7	6 4⅞	....	....	181	1 0⅝	2473
„ 1881..	11151	11417	3592	57	157	3806	33 6 8	6 8	....	....	608	1 0	2238
„ 1882..	14602	15454	5041	66	183	5290	34 4 8	6 10½	....	....	163	0 2½	4016
„ 1883..	16661	16377	5435	68	222	5725	34 19 1⅞	6 11⅞	294	0 4½	....	....	3950
„ 1884†	18215	18138	5924	94	220	6238	34 7 10	6 10½	287	0 3⅞	....	....	3506
„ 1885..	22666	23811	7832	176	256	8264	34 14 1	6 11½	261	0 2⅜	....	....	5314
„ 1886..	22231	23418	7867	267	405	8539	36 9 3⅛	7 3⅛	375	0 4	....	....	6869
„ 1887.	22519	20051	7110	313	380	7803	36 14 11	7 4⅛	237	0 2½	....	....	5382
„ 1888..	29307	22998	9371	488	588	10447	45 8 6⅛	9 1	1021	0 5⅛	....	....	10863
„ 1889†	29815	22899	9155	602	687	10444	45 12 2⅛	9 1⅛	1922	1 3⅜	....	....	10280
	190227	178001	62384	2147	3128	67659	38 0 2¼	7 7⅛	4397	....	952	....	....
						Less Loss			952	....			
						Leaves Profit..			3445	0 4½			

* Two quarters. † Fifty-three weeks.

DURHAM SOAP WORKS SUPPLIES, EXPENSES, PROFIT, AND STOCKS.

From its Commencement.

IN YEARS.

YEAR ENDING	Net Supplies.	Production.	Expenses.				Rate on Production.		Net Profit.		Net Loss.		Stocks.
			Sundry.	Depreciation.	Interest	Total.	Per cent.	Per £.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£	s. d.	£
Jan., 1875*	2099	2976	130	75	85	290	9 14 10	1 11½	19	0 1½	..	..	1809
„ 1876	9264	9309	512	155	213	880	9 9 0	1 10⅝	236	0 6	..	..	1303
„ 1877†	9549	9725	488	177	271	936	9 12 6	1 11	191	0 4⅝	..	..	3871
„ 1878	11098	11913	684	336	448	1468	12 6 5	2 5½	..	..	307	0 6½	3721
„ 1879	11735	11169	883	345	430	1658	14 16 10	2 11⅝	..	..	670	1 2⅝	3130
Dec., 1879‡	8903	9387	715	277	349	1341	14 5 8	2 10½	..	..	115	0 2⅝	3769
„ 1880	11730	11404	781	289	323	1393	12 4 3	2 5½	138	0 2⅞	..	..	3571
„ 1881	11871	12265	842	292	376	1510	12 6 2	2 5½	182	0 2½	..	..	3707
„ 1882	12801	12504	795	292	350	1437	11 9 10	2 3½	..	..	99	0 1⅞	2628
„ 1883	14751	15941	910	299	359	1568	9 16 8	1 11⅝	62	0 0⅞	..	..	5185
„ 1884†	15219	14721	849	327	343	1519	10 6 4	2 0⅜	97	0 1⅜	..	..	3489
„ 1885	17911	17994	1117	320	300	1737	9 13 0	1 11½	907	1 0	..	..	4361
„ 1886	15886	15783	1623	320	252	2195	13 18 1⅜	2 9⅜	741	0 11½	..	..	3999
„ 1887	15280	14888	1516	320	244	2080	13 19 5	2 9¼	524	0 8⅝	..	..	3637
„ 1888	21756	22126	1916	320	269	2505	11 6 5½	2 3¼	590	0 6¼	..	..	5448
„ 1889†	24643	23986	1821	328	299	2448	10 4 1⅝	2 0⅛	234	0 2¼	..	..	4938
	214496	216091	15582	4472	4911	24965	11 11 0⅝	2 3⅝	3871	..	1191	..	..
							Less Loss		1191				
							Leaves Net Profit.		2680	0 2⅞			

* Two quarters. † Fifty-three weeks. ‡ Fifty weeks.

LONGTON CROCKERY DEPOT TRADE.

From its Commencement.

IN YEARS.

DATE.	Supplies.			Total Expenses.		Net Profit.		Stocks.
	Selves.	Scot'ish	Total.	Amount	Rate.	Amount	Rate.	
	£	£	£	£	s. d.	£	s. d.	£
December, 1886 (2 quarters)	3968	..	3968	372	1 10½	Loss 37	0 2½	540
,, 1887	11925	304	12229	876	1 5⅛	179	0 3½	596
,, 1888	14473	1072	15545	1000	1 3⅝	353	0 5⅝	1116
,, 1889 (53 weeks)	17466	1183	18649	1138	1 2⅝	569	0 7¼	1920
	47832	2559	50391	3386	1 4⅛	1064	0 5	..

BATLEY WOOLLEN MILL TRADE.

From its Commencement.

IN YEARS.

DATE.	Net Supplies.	Production.	Expenses.				Rate on Production.		Net Loss.		Stocks.
			Sundry.	Depreciation.	Interest.	Total.	Per cent.	Per £.	Amount.	Rate.	
	£	£	£	£	£	£	£ s. d.	s. d.	£	s. d.	£
December, 1887	2478	8495	3720	131	164	4015	47 5 3½	9 5⅜	483	3 10¾	8061
,, 1888	11590	13836	6063	297	513	6873	49 13 5⅝	9 11½	1629	2 9⅜	11876
,, 1889*	17189	12332	5705	333	534	6572	53 5 10⅜	10 7⅝	3918	4 6⅜	7308
	31257	34663	15488	761	1211	17460	50 7 4⅞	10 0⅞	6030	3 10¼	..

* Fifty-three weeks.

DISTRIBUTIVE EXPENSES FOR THE YEAR

SALES =	TOTALS. £6,435,697.		MANCHESTER GROCERY. £3,503,194.	
	Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.
	£	d.	£	d.
Wages	47181·63	175·95	15827·98	108·43
Auditors' Fees	240·00	·90	130·72	·90
,, Deputation Fees	12·00	·04	6·50	·04
,, Fares	94·83	·35	51·69	·35
,, Deputation Fares	17·22	·06	9·35	·06
Fees—General and Branch Committees	698·84	2·61	283·73	1·95
,, Sub-Committees	412·49	1·54	88·64	·61
,, Finance Committee	74·13	·28	40·35	·28
,, Rules—Revision Committee	52·70	·19	29·02	·19
,, Stocktakers	47·52	·18	4·87	·03
,, Scrutineers	5·00	·02	2·73	·01
,, Secretaries	90·00	·34	25·00	·18
,, Deputations	343·40	1·28	175·10	1·19
Mileages—General and Branch Committees	176·49	·66	61·50	·43
,, Sub-Committees	154·00	·57	26·54	·19
,, Finance Committee	15·10	·06	8·24	·05
,, Rules—Revision Committee	2·10	·01	1·15	·01
,, Stocktakers	11·63	·03	1·38	·01
,, Scrutineers	2·94	·01	1·64	·01
,, Deputations	36·61	·14	11·32	·07
Fares and Contracts — General and Branch Committees	460·99	1·72	155·62	1·06
,, Sub-Committees	254·60	·95	41·13	·29
,, Finance Committee	17·64	·06	9·67	·06
,, Rules—Revision Committee	68·07	·25	37·51	·26
,, Stocktakers	26·48	·10	2·28	·01
,, Scrutineers	3·02	·01	1·36	·01
,, Deputations	505·78	1·89	323·30	2·22
Price Lists: Printing	1248·41	4·65	588·38	4·04
,, Postage	304·84	1·14	144·29	·98
Balance Sheets: Printing	294·37	1·10	150·07	1·03
Printing and Stationery	3904·48	14·56	1489·73	10·21
Printing, &c., Revision Rules	35·96	·13	19·34	·13
Periodicals	113·41	·42	58·73	·39
Travelling	4043·15	15·08	825·41	5·66
Telegrams	382·00	1·42	252·08	1·72
Stamps	3162·89	11·79	1689·05	11·58
Petty Cash	291·53	1·09	158·38	1·09
Advertisements	207·47	·77	102·67	·70
Rents, Rates, and Taxes	2462·89	9·18	556·44	3·82
Coals, Gas, and Water	1973·42	7·35	632·62	4·34
Oil, Waste, and Tallow	89·29	·34	32·96	·23
Repairs and Renewals	2851·20	10·63	785·75	5·39
Expenses Quarterly Meeting	243·93	·92	161·01	1·10
,, *re* Sugar Bounties Conference and Railway Rates	49·95	·19	31·81	·21
Printing and Stamps ditto ditto	109·12	·41	57·19	·39
Legal	6·24	·02	4·10	·02
Employés' Picnic	65·57	·24	26·57	·18
Telephones	247·20	·92	149·90	1·03
Annuals	749·76	2·79	412·21	2·83
Dining-rooms	1930·03	7·20	903·49	6·19
Insurance—Fire and Guarantee	1644·75	6·13	173·94	1·19
Depreciation: Land	1290·43	4·82	426·97	2 92
,, Buildings	6880·97	25·66	1597·00	10·95
,, Fixtures	3122·22	11·64	742·89	5·09
Interest	29140·15	108 70	10275·66	70·39
	117850·84	439·49	39804·96	272·70

ENDING DECEMBER 28TH, 1889 (53 WEEKS).

MANCHESTER.

DRAPERY.		WOOLLENS.		BOOT AND SHOE.		FURNISHING.	
£256,450.		£26,813.		£163,002.		£96,164.	
Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.
£	d.	£	d.	£	d.	£	d.
5757·32	538·80	768·72	688·07	2255·13	332·04	1984·73	495·34
9·58	·90	1·01	·91	6·08	·89	3·45	·86
·48	·05	·05	·04	·30	·05	·17	·04
3·78	·35	·39	·36	2·40	·35	1·36	·34
0·68	·05	·07	·06	·43	·06	·26	·07
29·87	1·95	2·22	1·99	13·50	1·98	7·47	1·86
43·83	4·67	5·20	4·65	33·42	4·92	18·70	4·67
2·05	·28	·31	·28	1·89	·28	1 06	·26
·04	·19	·20	·17	1·16	·17	·74	·19
10·12	·95	1·50	1·34	1·50	·22	1·50	·37
·20	·02	·02	·02	·12	·02	·07	·02
7·24	·68	·70	·63	4·62	·68	2·43	·61
35·30	3·30	1·76	1·58	11·77	1·73	6·55	1·63
4·50	·42	·48	·43	2·93	·43	1·62	·40
20·39	1·91	2·20	1·97	13·72	2·02	7·64	1·91
·61	·05	·05	·04	·39	·06	·21	·05
·08	..	·01	·01	·04	..	·03	·01
3·19	·30	·09	·08	·08	·01	·41	·10
·12	·01	·01	·01	·07	·01	·04	·01
3·44	·32	·28	·25	1·71	·25	1·00	·25
10·73	1·00	1·30	1·16	6·30	·93	3·19	·80
15·36	1·44	1·61	1·44	10·63	1·56	6·13	1·53
·68	·06	·05	·04	·39	·06	·24	·06
2·63	·25	·25	·23	1·50	·22	·95	·24
2·91	·27	·34	·31	·94	·14	·52	·13
·07	..	..	..	·06	·01	·03	·01
33·14	3·10	2·07	1·85	13·06	1·92	7·85	1·96
7·75	·73	..	..	52·82	7·78	61·93	15·46
1·08	·10	..	..	8·00	1·18	20·98	5·23
10·99	1·03	1·15	1·03	7·05	1·04	3·97	·99
335·62	31·41	29·99	26·84	210·64	31·01	119·47	29·81
1·42	·13	·14	·12	·83	·12	·58	·14
5·31	·50	·70	·63	2·88	·43	1·92	·49
670·52	62·75	228·19	204·25	131·38	19·35	186·82	46·62
2·12	·20	1·16	1·04	2·57	·38	3·65	·91
122·40	11·46	12 72	11·39	77·60	11·42	43·92	10·96
15·18	1·42	1·95	·93	12·57	1·85	6·42	1·60
7·60	·71	1·64	1·47	4·85	·72	2·63	·66
146·94	13·75	23·15	20·72	85·60	12·60	131·33	32·77
141·83	13·27	30·90	27·66	94·95	13·98	77·32	19·29
2·33	·22	·24	·22	1·46	·22	·96	·24
182·40	17·07	8·20	7 34	87·33	12·86	80·26	20·03
11·78	1·10	1·23	1·10	7·52	1·11	3·85	·96
3·00	·28	·39	·36	2·38	·35	1·13	·28
3·59	·34	·47	·42	2·85	·42	1·36	·34
·19	·02	·02	·02	·11	·02	·06	·02
1·84	·17	·17	·15	1·04	·15	·64	·16
20·30	1·90	1·50	1·34	2·00	·30	2·50	·63
26·17	2·45	2·84	2·54	17·22	2·54	9·51	2·38
214·96	20·12	20·76	18·58	138·10	20·33	78·83	19·67
215·80	20·20	32·05	28·69	85·36	12·57	59·99	14·97
187·81	17·58	21·50	19·24	94·73	13·94	159·43	39·78
701·90	65·69	80·60	72·14	353·62	52·07	592·14	147·78
450·14	42·13	41·52	37·16	148·05	21·89	146·68	36·61
3677·44	344·16	511·01	457·40	1473·74	216·98	1094·95	273·27
13166·75	1232·21	1844·18	1650·70	5491·39	808·53	4951·56	1235·77

DISTRIBUTIVE EXPENSES FOR THE YEAR

	NEWCASTLE.					
	GROCERY.		DRAPERY.		BOOTS & SHOES.	
SALES=	£1,100,451.		£185,443.		£90,530.	
	Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.
	£	d.	£	d.	£	d.
Wages	6332·21	138·10	2473·13	320·07	1256·05	333·01
Auditors' Fees	41·11	·90	6·93	·90	3·37	·89
,, Deputation Fees	2·06	·04	·35	·04	·16	·04
,, Fares	16·26	·35	2·73	·35	1·32	·35
,, Deputation Fares	2·95	·07	·52	·07	·24	·06
Fees—General and Branch Committees	151·11	3·30	35·68	4·61	15·10	4·00
,, Sub-Committees	52·60	1·14	24·30	3·14	17·48	4·63
,, Finance Committee	12·67	·28	2·14	·28	1·03	·27
,, Rules—Revision Committee	8·90	·19	1·42	·18	·74	·20
,, Stocktakers	4·12	·09	3·75	·49	1·50	·40
,, Scrutineers	·87	·02	·15	·02	·07	·02
,, Secretaries	12·67	·28	7·03	·91	1·53	·41
,, Deputations	21·78	·48	3·68	·48	2·33	·62
Mileages—Gen. & Branch Committees	30·92	·67	7·10	·91	3·05	·81
,, Sub-Committees	5·12	·11	5·78	·74	3·15	·83
,, Finance Committee	2·59	·06	·43	·06	·21	·05
,, Rules—Revision Committee.	·37	·01	·06	·01	·03	·01
,, Stocktakers	·35	·01	·99	·13	·22	·06
,, Scrutineers	·50	·01	·07	·01	·05	·01
,, Deputations	1·85	·04	·30	·04	·25	·07
Fares and Contracts — General and Branch Committees	83·60	1·82	16·54	2·14	9·46	2·51
,, Sub-Committees	50·64	1·10	13·64	1·77	10·58	2·80
,, Finance Committee	3·18	·07	·44	·06	·21	·05
,, Rules—Revision Committee	11·47	·25	1·85	·24	·95	·25
,, Stocktakers	1·43	·03	1·00	·13	·70	·19
,, Scrutineers	·42	·01	·55	·07	·02	·01
,, Deputations	17·83	·39	3·00	·39	1·51	·40
Price Lists: Printing	117·78	2·57	..	..	10·51	2·79
,, Postage	28·65	·63	..	..	1·60	·42
Balance Sheets: Printing	30·05	·66	5·04	·65	2·46	·65
Printing and Stationery	515·14	11·24	125·32	16·22	79·79	21·15
Printing, &c.—Revision Rules	6·20	·13	1·10	·14	·46	·12
Periodicals	14·25	·31	2·33	·30	1·00	·26
Travelling	462·15	10·08	368·52	47·69	203·48	53·94
Telegrams	82·79	1·81	4·00	·52	4·00	1·06
Stamps	424·58	9·26	80·60	10·43	51·27	13·59
Petty Cash	31·70	·69	2·70	·35	4·20	1·11
Advertisements	42·23	·92	8·73	1·13	3·50	·93
Rents, Rates, and Taxes	263·55	5·75	167·50	21·68	133·48	35·39
Coals, Gas, and Water	305·95	6·67	79·27	10 26	28·33	7·52
Oil, Waste, and Tallow	20·07	·44	3·48	·45	1·65	·44
Repairs and Renewals	466·30	10·17	376·63	48·74	139·75	37·04
Expenses—Quarterly Meeting	20·09	·44	3·39	·44	1·65	·44
,, *re* Sugar Bounties Conference and Railway Rates	..	..	..	..	..	..
Printing and Stamps ditto	8·70	·18	1·55	·20	·82	·22
Legal	·82	·02	·14	·02	·06	·02
Employés' Picnic	7·08	·14	7·03	·91	1·78	·47
Telephones	12 95	·28	1·83	·24	·82	·22
Annuals	136·80	2·98	19·20	2·49	9·12	2·41
Dining-rooms	275·81	6·02	82·45	10·67	38·49	10·20
Insurance—Fire and Guarantee	157·41	3·43	148·07	19·16	78·22	20·74
Depreciation: Land	97·46	2·13	61·52	7·96	48·73	12·92
,, Buildings	656·79	14·32	427·90	55·38	340·33	90·22
,, Fixtures	252·85	5·51	165·89	21·47	132·14	35·03
Interest	3639·04	79·37	1758·47	227·58	921·58	244·32
	14946·78	325·97	6516·22	843·32	3570·56	946·57

ENDING DECEMBER 28TH, 1889 (53 WEEKS).

NEWCASTLE.		LONDON.					
FURNISHING.		GROCERY.		DRAPERY AND FURNISHING.		BOOTS AND SHOES.	
£49,078.		£848,378.		£83,540.		£32,654.	
Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.	Amount.	Rate ℔ £100.
£	d.	£	d.	£	d.	£	d.
1033·20	505·26	5687·40	160·89	3127·29	898·43	678·47	498·66
1·80	·88	31·60	·90	3·12	·90	1·23	·90
·11	·05	1·60	·05	·16	·05	·06	·05
·71	·35	12·50	·35	1·22	·35	·47	·35
·13	·06	2·28	·06	·23	·07	·08	·06
6·39	3·12	132·22	3·74	23·25	6·68	7·30	5·37
5·64	2 76	72·94	2·06	32·03	9·20	11·71	8·61
·55	·27	9·75	·29	·96	·27	·37	·27
·41	·20	7·14	·19	·66	·19	·27	·20
3·00	1·47	5·45	·16	8·72	2·51	1·49	1·10
·03	·01	·66	·02	·06	·02	·02	·01
·78	·38	18·69	·53	8·44	2·42	·87	·64
·95	·46	68·31	1·93	12·37	3·55	3·52	2·59
1·31	·64	53·44	1·51	6·99	2·01	2·65	1·95
1·68	·82	41·65	1·18	18·39	5·28	7·74	5 69
·11	·05	1·99	·06	·19	·05	·08	·06
·02	·01	·28	·01	·02	·01	·01	·01
·67	·33	·83	·02	2·83	·81	·59	·43
·02	·01	·37	·01	·04	·01	·01	·01
·08	·04	12·12	·34	3·35	·96	·90	·66
2·95	1·44	143·49	4·06	20·78	5·97	7·03	5·16
4·40	2·16	50·86	1·44	33·73	9·68	15·89	11·68
·12	·06	2·35	·07	·22	·06	·09	·06
·53	·26	9·23	·26	·85	·24	·35	·26
·34	·16	9 69	·27	3·98	1·14	2·35	1·72
·15	·07	·34	·01	·02	·01	..	..
·81	·40	84·85	2·40	14·58	4·19	3·78	2·78
12·86	6·29	334·42	9·46	32·57	9·36	29·39	21·61
4·12	2·01	81·13	2·30	10·45	3·00	4·54	3·34
1·34	·66	72·25	2·04	7·19	2·06	2·81	2·06
138·58	67·77	512·09	14·49	292·56	84·05	55·55	40·83
·36	·18	4·89	·14	·47	·14	·17	·12
1·41	·69	19·61	·55	6·18	1·78	1·09	·80
45·47	22·24	283·23	8·01	511·39	146·92	126·59	93·04
2·00	·98	24·40	·69	2·30	·66	·93	·68
41·30	20·19	378·29	10·70	203·48	58·46	37·68	27·70
2·19	1·07	35·04	·99	21·25	6·11	·85	·62
2·27	1·11	25·88	·73	3·45	·99	2·02	1·48
149·52	73·12	552·92	15·65	207·89	59·72	44·57	32·76
17·40	8·51	348·69	9·86	164·80	47·35	51·33	37·73
·97	·48	16·02	·45	6·25	1·80	2·90	2·13
47·83	23·39	448·56	12·69	202·02	58·04	26·17	19·24
·88	·43	28·18	.79	3·62	1·04	·73	·54
..	..	9·84	·28	·98	·28	·42	·31
·43	·21	28·15	·80	2·81	·81	1·20	·88
·03	·01	·62	·02	·06	·02	·03	·02
·90	·44	10·25	·29	5·77	1·66	2·50	1·83
·40	·20	35·00	·99	14·35	4·12	5·65	4·15
4·93	2·41	99·87	2·83	8·57	2·46	3·32	2·44
20·44	9·99	106·38	3·00	35·15	10·10	15·17	11·15
50·39	24·64	312·95	8·87	270·04	77·58	60·53	44·48
48·44	23·69	86·07	2·44	47·75	13·72	10·02	7·37
339·87	166·20	1030·18	29·14	630·04	181·00	130·60	95·99
132·25	64·67	544·30	15·40	302·87	87·01	62·64	46·03
603·22	294·98	3284·70	92·92	1536·25	441·34	364·09	267·60
2736·69	1338·28	15175·94	429·32	7854·99	2256·64	1790·82	1316·21

The Co-operative Union Limited.

OFFICES: 14, CITY BUILDINGS, CORPORATION STREET, MANCHESTER.

THE CO-OPERATIVE UNION LIMITED is an organisation which has been formed for—

The promotion of the practice of truthfulness, justice, and economy in production and exchange.

(1) By the abolition of all false dealing, either—

a. Direct, by representing any article produced or sold to be other than what it is known to the producer or vendor to be; or,

b. Indirect, by concealing from the purchaser any fact known to the vendor material to be known by the purchaser, to enable him to judge of the value of the article purchased.

(2) By conciliating the conflicting interests of the capitalist, the worker, and the purchaser, through an equitable division among them of the fund commonly known as *Profit*.

(3) By preventing the waste of labour now caused by unregulated competition.

Whoever seriously considers the enormous amount of evil caused to mankind at present by the non-observance of these principles in the transactions forming the staple of their daily lives, and the corresponding amount of good that would arise from their general adoption, must give a hearty support to a Union formed to promote their practice.

The Executive of the Union is THE CENTRAL BOARD, which is—

a. A Board of Legal and General Advice in all matters relating to the business and interest of societies as co-operative associations.

b. A Statistical Bureau, collecting and collating for the free use of the societies every kind of information likely to be of service to them.

c. A Propagandist Agency, organising and directing efforts for the dissemination of the principles of co-operation throughout Great Britain and Ireland, and afterwards to the world at large.

The Union consists of Industrial and Provident Societies, Joint-stock Companies, or other Bodies Corporate.

No society is admitted into the Union unless its management is of a representative character, nor unless it agree—

(1) To accept the statement of principles given above as the rules by which it shall be guided in all its own business transactions.

(2) To contribute the annual payment following:—

a. If the number of members of any such society, or of the employés of any such industrial partnership, is less than 500, then the sum of 2d. for each member:

b. If the number of such members (or employés) exceeds 500, then, at least, the sum of 1,000d.

In estimating the number of members of a society comprising other societies, each such society is considered to be one member.

The financial year commences on the 1st April in each year, and the subscription is considered due, 1d. in the first and 1d. in the third quarter, but may be wholly paid in the first quarter.

Secretaries forwarding Cheques on account of the Union are requested to make them payable to the Co-operative Union Limited; Money Orders to J. C. GRAY, Cashier.

Summary of the Law Relating to Societies

UNDER THE

INDUSTRIAL AND PROVIDENT SOCIETIES ACT, 1876,

THE CUSTOMS AND INLAND REVENUE ACT, 1880, AND THE PROVIDENT NOMINATIONS AND SMALL INTESTACIES ACT, 1883.

I.—The Formation of Societies—

1. Application must be made to the Registrar of Friendly Societies, in London, Edinburgh, or Dublin, according to the case, on a form supplied by the office, signed by seven persons and the secretary, accompanied by two copies of the rules, signed by the same persons.

2. These rules must provide for twenty matters stated on the form of application.

3. No fees charged on the registration of a society.

N.B.—Model rules on these twenty matters can be obtained from the Registrar's office; and the Co-operative Union Limited, 14, City Buildings, Corporation Street, Manchester, publishes, at the cost of 1½d. a copy, general rules, approved of by the Chief Registrar, providing also for many other matters on which rules are useful; and capable of being adopted, either with or without alterations, by a few special rules, with a great saving in the cost of printing.

The General Secretary of the Union will prepare such special rules, without charge, on receiving a statement of the rules desired.

II. Rights of a Registered Society—

1. It becomes a body corporate, which can by its corporate name sue and be sued, and hold and deal with property of any kind, including shares in other societies or companies, and land to any amount.

2. Its rules are binding upon its members, though they may have signed no assent to them; but may be altered by amendments duly made as the rules provide, and registered, for which a fee of 10s. is charged. The application for registration must be made on a form supplied by the Registrar's office.

3. It can sue its own members, and can make contracts, either under its seal or by a writing signed by any person authorised to sign, or by word of mouth of any person authorised to speak for it, which will be binding wherever a contract similarly made by an individual would bind him.

4. It may make all or any of its shares either transferable or withdrawable, and may carry on any trade, including the buying and selling of land, and banking under certain conditions, and may apply the profits of the business to any lawful purpose; and, if authorised by its rules, may receive money on loan, either from its members or others, to any amount so authorised.

5. If it has any withdrawable share capital it may not carry on banking, but may take deposits, within any limits fixed by its rules, in sums not exceeding 5s. in any one payment, or £20 for any one depositor, payable at not less than two clear days' notice.

6. It may make loans to its members on real or personal security; and may invest on the security of other societies or companies, or in any except those where liability is unlimited.

7. If the number of its shares is not limited either by its rules or its practice, it is not chargeable with income tax on the profits of its business.

8. It can, in the way provided by the Act, amalgamate with or take over the business of any other society, or convert itself into a company.

9. It can determine the way in which disputes between the society and its officers or members shall be settled.

10. It can dissolve itself, either by an instrument of dissolution signed by three-fourths of its members, or by a resolution passed by a three-fourths vote at a special general meeting, of which there are two forms—(A) purely voluntary, when the resolution requires confirmation at a second meeting; (B) on account of debts, when one meeting is sufficient. In such a winding up hostile proceedings to seize the property can be stayed.

III.—Rights of the Members (see also *IV.*, 4, 5, 6)—

1. They cannot be sued individually for the debts of the society, nor compelled to pay more towards them than the sum remaining unpaid on any shares which they have either expressly agreed to take or treated as their property, or which the rules authorise to be so treated.

2. If they transfer or withdraw their shares, they cannot be made liable for any debts contracted subsequently, nor for those subsisting at the time of the transfer or withdrawal, unless the other assets are insufficient to pay them.

3. Persons not under the age of 16 years may become members, and legally do any acts which they could do if of full age, except holding any office.

4. An individual or company may hold any number of shares allowed by the rules, not exceeding the nominal value of £200, and any amount so allowed as a loan. A society may hold any number of shares.

5. A member who holds at his death not more than £100 in the society as shares loans, or deposits, may, by a writing recorded by it, nominate, or vary or revoke the nomination of any persons to take this investment at his death; and if he dies intestate, without having made any subsisting nomination, the committee of management of the society are charged with the administration of the fund; subject in either case to a notice to be given to the Commissioners of Inland Revenue whenever the sum so dealt with exceeds £80.

6. The members may obtain an inquiry into the position of the society by application to the Registrar.

IV.—Duties of a Registered Society—

1. It must have a registered office, and keep its name painted or engraved outside, and give due notice of any change to the Registrar.

2. It must have a seal on which its name is engraved.

3. It must have its accounts audited at least once a year, and keep a copy of its last balance sheet and the auditors' report constantly hung up in its registered office.

4. It must make to the Registrar, before the 1st of June in every year, a return of its business during the year ending the 31st December previous, and supply a copy of its last returns gratis to every member and person interested in its funds on application.

5. It must allow any member or person interested in its funds to inspect its books, other than the loan or deposit account of any other member.

6. It must supply a copy of its rules to every person on demand, at a price not exceeding one shilling.

7. If it carries on banking, it must make out in February and August in every year, and keep hung up in its registered office, a return, in a form prescribed by the Act; and it has also to make a return every February to the Stamp-office under the Banking Act.

The non-observance by a society of these duties exposes it and its officers to penalties varying from £1 to £50, which are in some cases cumulative for every week during which the neglect lasts.

THE

"Co-operative News"

AND

JOURNAL OF ASSOCIATED INDUSTRY.

THE OFFICIAL ORGAN OF INDUSTRIAL AND PROVIDENT CO-OPERATIVE SOCIETIES.

THE *NEWS* is the property of a Federation of Co-operative Societies located in all parts of Great Britain. It is an exponent of opinion, thoroughly impartial and comprehensive, upon all subjects connected with Association, particularly in its application to the Distribution and Production of Wealth. It is a free platform for the discussion of topics bearing upon the social well-being of the people, and affords an opportunity for the expression of every view of Co-operation which commends itself as thoughtful and sincere.

It aims at becoming *the paper* for the working man, by embracing every subject interesting to him in his daily life.

The importance of maintaining a vehicle for the conveyance of co-operative intelligence cannot be over-rated. Each society is invited to become a shareholder, and every individual co-operator is solicited to subscribe.

The *News* may be had by application to any Bookseller, through the Local Stores, or from the Offices of the Society,

88 AND 90, CORPORATION STREET, MANCHESTER;
119, PAISLEY ROAD, GLASGOW;
AND
35, RUSSELL STREET, COVENT GARDEN, LONDON, W.C.

N.B.—CLOTH CASES for the *News* will be SUPPLIED GRATIS to Societies who send copies to public and semi-public reading-rooms.

PRICE ONE PENNY WEEKLY.

Sold at many of the Stores at One Halfpenny.

THE

Co-operative Insurance Company

LIMITED.

ESTABLISHED 1867.

HEAD OFFICES:

CITY BUILDINGS, CORPORATION ST., MANCHESTER.

PRINCIPAL AGENCIES:

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LIMITED,

119, Paisley Road, Glasgow;

AND EACH BRANCH OF THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

DIRECTORS:

Chairman—Mr. WILLIAM BARNETT, Macclesfield.

Mr. WM. BAMFORTH, Manchester.	Mr. A. MILLER, Tillicoultry, N.B.
Mr. W. A. HILTON, Bolton.	Mr. E. V. NEALE, Bisham Abbey.
Mr. ROBERT HOLT, Rochdale.	Mr. T. RAWLINSON, Burnley.

Mr. T. WOOD, Manchester.

AUDITORS:

Mr. A. HACKNEY, Bolton, and Mr. J. E. LORD, Rochdale.

MANAGER:

Mr. JAMES ODGERS, Manchester.

BANKERS:

THE CO-OPERATIVE WHOLESALE SOCIETY LIMITED.

Almost immediately after the establishment of the Co-operative Wholesale Society, the representatives of co-operative societies, at their periodical conferences, began to consider the advisability of having an insurance institution of their own.

Insurance was not, at that time, included among the objects for which societies might be registered under the Industrial and Provident Societies Act.

On August 29th, 1867, however, the Co-operative Insurance Company Limited was incorporated under the Companies Act, with its Registered Office at the Equitable Pioneers' Society's Stores, in Toad Lane, Rochdale; with the following objects, viz:—

1. To Insure against Damage by Fire any Property, whether belonging to any member of the Company or not.
2. To guarantee the honesty of persons employed by Co-operative Societies.
3. To Insure the Lives of Members of Co-operative Societies.
4. To do all such other things as are incidental or conducive to the attainment of the above objects.

The first Fire Policy was issued on February 21st, 1868, and the first Fidelity Guarantee Policy was issued on June 25th, 1869. Towards the end of 1871 the Company's Office was removed to Manchester, and in 1872 it began to appoint agents.

At the Eighteenth Annual Meeting, held on February 27th, 1886, it was resolved to carry into effect the third object for which the Company was registered, viz., "To Insure the Lives of Members of Co-operative Societies."

Tables of Premiums were promptly prepared,—the prospectus of the Life Department was distributed at the Plymouth Congress in Whit-week, and the first Life Policy was issued on August 14th, 1886.

The following statement shows the progress of the Company to the end of 1889:—

YEAR.	No. of Society Shareholders.	Share Capital. Shares—£1 each.		Fire Insurances.		Fidelity Guarantee.		Life Insurance.		Funds in excess of Paid-up Capital.
		Subscribed.	Paid up.	Premiums after Deducting Re-Insurances.	Losses.	Premiums.	Losses.	Premiums.	Claims.	
		£	£	£	£	£	£	£	£	£
1868	Se	ven	mont	hs only—	included w	ith	ne	xt	ye	ar.
1869	41	1,715	503	208	6	67	Nil.	Nil.	Nil.	188
1870	41	1,715	524	157	1	123	..	..	..	378
1871	42	4,216	1,008	173	Nil.	162	..	..	..	597
1872	46	6,468	1,514	256	62	253	..	..	..	961
1873	51	9,494	2,204	369	28	392	3	..	..	1,488
1874	64	10,706	2,868	571	29	449	200	..	..	1,793
1875	71	11,314	3,855	1,075	1,861	559	Nil.	..	..	1,508
1876	89	11,877	4,171	1,725	39	457	..	..	..	3,191
1877	96	12,365	4,590	3,923	1,613	525	270	..	..	4,887
1878	109	13,208	5,404	6,343	6,933	399	Nil.	..	..	3,139
1879	128	15,996	6,475	5,220	3,888	568	23	..	..	3,662
1880	144	17,698	10,289	3,393	3,403	543	50	..	..	3,093
1881	169	19,377	10,518	3,061	2,738	541	402	..	..	2,841
1882	180	20,170	10,587	2,829	1,741	536	692	..	..	2,730
1883	194	22,985	11,110	3,111	2,275	551	277	..	..	2,998
1884	204	23,760	11,243	3,451	461	620	286	..	..	5,065
1885	236	26,475	11,728	4,425	2,463	777	1132	..	..	5,356
1886	260	29,020	12,227	4,711	1,117	699	300	118	..	7,353
1887	268	30,540	12,467	5,590	1,387	802	794	613	..	10,024
1888	278	31,855	12,325	6,138	1,245	786	225	963	..	14,076
1889	287	33,775	12,597	6,703	3,400	894	726	1069	125	16,521

LIFE DEPARTMENT.

Although the Company was established three years before the Life Assurance Companies Act, 1870, was passed, the following requirements by that Act apply to the Company, and increase the

SECURITY OF POLICY-HOLDERS.

"A separate account shall be kept of all receipts in respect of the life assurance contracts of the Company, and the said receipts shall be carried to and form a separate fund, to be called the Life Assurance Fund of the Company, and such fund shall be as absolutely the security of the life policy-holders as though it belonged to a company carrying on no other business than life assurance, and shall not be liable for any contracts of the Company for which it would not have been liable had the business of the Company been only that of Life Assurance."

The Company's insurances on lives take effect for the full amount from the moment when the first premium has been paid; and all reasonable facilities are given to the insured to prevent the lapsing of policies through temporary inability to pay the premiums.

SPECIMEN RATES.

PREMIUMS FOR THE INSURANCE OF £100 at DEATH.

Age next Birthday.	One Premium.	Yearly.	Half-yearly.	Quarterly.	Age next Birthday.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
20	37 8 6	1 15 8	0 18 10	0 10 0	20
25	40 10 2	2 0 4	1 1 3	0 11 3	25
30	43 17 1	2 5 10	1 4 0	0 12 8	30
35	47 11 9	2 12 11	1 7 8	0 14 6	35
40	51 13 3	3 1 8	1 12 1	0 16 8	40
45	56 1 4	3 12 10	1 17 9	0 19 7	45
50	60 17 5	4 7 6	2 5 4	1 3 4	50

NOTE.—Persons who prefer to be free from liability to pay renewal premiums after attaining the age of 55, 60, or 65, can be insured under the appropriate Tables.

PREMIUMS FOR THE INSURANCE OF £100 AT AGE 60 OR AT DEATH, IF THAT EVENT SHOULD OCCUR EARLIER.

Age next Birthday.	One Premium.	Yearly.	Half-yearly.	Quarterly.	Age next Birthday.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
20	43 1 2	2 5 2	1 3 11	0 12 11	20
25	47 5 0	2 12 10	1 7 10	0 14 10	25
30	51 19 2	3 3 0	1 12 11	0 17 5	30
35	57 7 1	3 17 1	2 0 3	1 1 1	35
40	63 11 7	4 17 11	2 10 9	1 6 6	40
45	70 14 4	6 11 3	3 8 1	1 15 3	45
50	79 11 4	9 14 11	5 1 4	2 12 3	50

The rates of premium for insurances effected at intermediate ages, and for insurances payable on the attainment of age 50, 55, or 65, and at the death of the first of two lives insured jointly, will be supplied on application.

Policies insuring £25, £50, and £75 are issued for proportionate parts of the Premium for £100, subject to the limitation that no Life Policy is issued for a less premium that Five Shillings.

ONE-PREMIUM POLICIES.

A fully paid up Policy, insuring an amount payable at death or at age 50, 55, 60, or 65, may be obtained on payment of One Premium at the time of the acceptance of the proposal.

This method of Insurance is particularly suitable for those members of co-operative societies who have already saved some money.

MARRIED WOMEN'S PROPERTY ACT.

ASSURANCES IN VARIOUS FORMS MAY BE EFFECTED UNDER THIS ACT.

ADMISSION OF AGE.

This Company's Policies are free from all conditions relating to age, it being an invariable rule not to issue any Life Policy until satisfactory evidence of the age of the proposed life has been supplied. The representatives of deceased policy-holders are thus relieved from the trouble and pecuniary loss which often occurs when this is not adopted.

IMMEDIATE PAYMENT OF CLAIMS.

Claims are payable *immediately after proof of death and title* have been lodged at the Office and passed by the Directors.

THE PROFITS OF THE LIFE DEPARTMENT ARE DIVISIBLE EXCLUSIVELY WITH THE LIFE POLICY-HOLDERS.

To make Insurance as cheap as possible, the costly work of house-to-house collection of Premiums as practised by Industrial Life Offices must be dispensed with. If the members of stores will invest their savings therein, and pay the Premiums quarterly, half-yearly, or yearly, instead of weekly or monthly, the expenses will only be about half, or less than half as much as are charged in the premiums of Industrial Life Offices.

FIRE DEPARTMENT.

Insurances against Loss or Damage by Fire, in GREAT BRITAIN, are effected on Dwelling-houses, Schools, Public Buildings, Churches, Chapels, Co-operative Stores, Shops, Warehouses, Farming Property, Workshops, Mills; and on Goods in Transit on Roads and Railways; Merchandise in Docks, at Wharves, &c.; Vessels in Harbours and in Docks; Vessels in Navigable Rivers and Canals, and their Freight.

Most of the Co-operative Stores in England and many in Scotland and Wales are Insured by the Company. All Societies are invited to Transfer Insurances from other companies to the "Co-operative." The Members of Societies are also invited to propose their Property for Insurance.

Most persons in business Insure their STOCK-IN-TRADE, but a very large proportion of the PROPERTY IN PRIVATE DWELLINGS IS UNINSURED.

Probably many Householders are not aware that the cost of insurance does not ordinarily amount to more than ONE THOUSANDTH PART of the value of the Property Insured. In other words, they would be ONE THOUSAND YEARS in paying to the Company what the Company engages to pay them at once, if their Property be destroyed or damaged by fire.

The subjoined Table is given as illustrating the small payments that are now required for Insurance on the BUILDINGS of BRICK-BUILT PRIVATE HOUSES, AND ON FURNITURE THEREIN, including China, Glass, Pottery, Pictures, Jewellery, Books, Linen, Clothing, &c., &c.:—

SUM ASSURED.	ON HOUSES.	ON FURNITURE.	SUM ASSURED.	ON HOUSES.	ON FURNITURE.
£	s. d.	s. d.	£	s. d.	s. d.
100	2 0	2 0	400	6 0	8 0
150	2 3	3 0	500	7 6	10 0
200	3 0	4 0	1,000	15 0	£1
300	4 6	6 0			

Losses caused by Explosions of Coal-Gas within Private Dwellings Insured by the Company, and by Lightning, will be made good.

FIDELITY GUARANTEE DEPARTMENT.

Policies insuring Co-operative Societies against Loss by Acts of Embezzlement or Theft committed by persons employed by them in situations of trust, are issued at rates fixed in accordance with the conditions of risk.

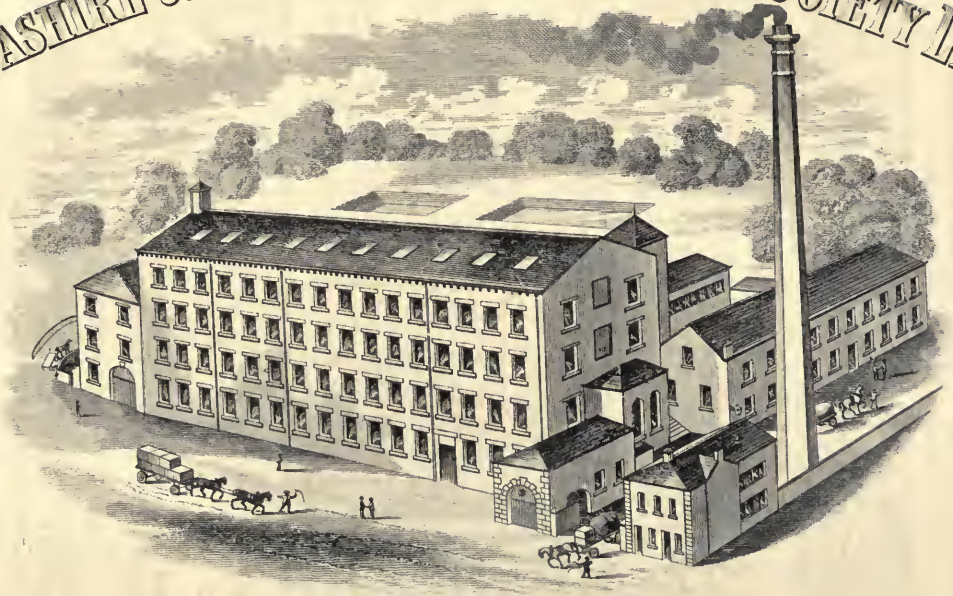
MEMBERSHIP AND AGENCY.

Every Co-operative Society which is not yet a member of the Company is invited to join it as Shareholder, Policy-holder, and Agent. For the more effectual development of the business, especially in the Life Department, a suitable individual agent is also wanted in connection with each society whose members are easily reached, and more than one where the members are distributed over a wide area.

THE LANCASHIRE & YORKSHIRE PRODUCTIVE SOCIETY LIMITED,

ANTI-RHEUMATIC FLANNELS.

DOMESTIC FLANNELS.



MANUFACTURERS,

Hare Hill Mills, LITTLEBOROUGH, near Manchester.

THE CELEBRATED ECONOMIC FLANNELS.

We beg most respectfully to ask your kind and generous support of the above Society.

The various descriptions of FLANNELS now made are admitted by those who have fully tried them to be unsurpassed in MAKE, WEIGHT, QUALITY, and PRICE.

It is earnestly requested that all Co-operative Societies press the sale of these Flannels amongst their members.

Economy is the order of the day, and we are fully justified in describing the Flannels made at the above mills as

THE CELEBRATED ECONOMIC FLANNELS.

Whenever you are buying be sure and ask for them.

They can be had at any of the following Co-operative Establishments:

1, BALLOON STREET, MANCHESTER.

WATERLOO STREET, NEWCASTLE-ON-TYNE.

LEMAN STREET, WHITECHAPEL, LONDON.

SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY, PAISLEY ROAD, GLASGOW.

AND AT

THE MILLS, HARE HILL ROAD, LITTLEBOROUGH.

THE LANCASHIRE AND YORKSHIRE PRODUCTIVE SOCIETY LIMITED.

Statement showing Condition and Progress of the Society since its Commencement.

DATE.	Share Redemption Fund.	Share Capital.	LOAN CAPITAL.				Profits.	Losses.	SALES.		
			Co-operative Societies.	Friendly Societies.	Individuals.	Total.			Co-operative.	Merchants.	Total.
	£	£	£	£	£	£	£	£	£	£	£
Half-year ending July 11, 1874	..	6195	..	..	..	..	..	..	..	..	..
„ „ Jan. 9, 1875	..	6195	..	50	341	391	..	..	..	..	..
„ „ July 9, 1875	..	6495	2330	868	1234	4432	456	..	1581	16	1597
„ „ Jan. 8, 1876	..	6495	2388	920	1273	4581	..	1896	5919	167	6087
„ „ July 8, 1876	..	6495	2423	960	1372	4756	..	43	5585	659	6244
„ „ Jan. 6, 1877	..	6600	2972	1091	1461	5525	157	..	4338	2827	7165
„ „ July 7, 1877	..	6600	2944	1297	1825	6067	..	496	2677	3136	5814
„ „ Jan. 5, 1878	..	6600	2946	1382	1723	6051	..	544	3094	4457	7551
„ „ June29, 1878	..	*2640	2818	1295	1368	5482	..	†1451	2690	3583	6273
4½ Months ending Nov. 16, 1878	..	2640	2856	1268	1269	5395	..	966	1329	3958	5287
IN LIQUIDATION.											
1½ Months ending Jan. 4, 1879	..	2640	2876	1277	1278	5432	20	..	473	939	1413
3 „ „ April 5, 1879	..	2640	2912	1293	1294	5499	25	..	1531	1271	2803
3 „ „ July 5, 1879	..	2640	2948	1309	1310	5568	38	..	1546	709	2256
3 „ „ Oct. 4, 1879	..	2640	2985	1325	1326	5637	55	..	1639	172	1812
3 „ „ Jan. 3, 1880	..	2640	3022	1341	1345	5708	92	..	3988	210	4198
3 „ „ April 3, 1880	..	2640	3060	1357	1382	5799	93	..	3276	115	3391
3 „ „ July 3, 1880	..	2640	5406	1373	1511	8290	95	..	3707	204	3911
3 „ „ Oct. 2, 1880	..	2640	5449	1411	1529	8389	84	..	3169	138	3307
3 „ „ Jan. 1, 1881	..	2640	5486	1429	1575	8490	21	..	4266	175	4441
3 „ „ April 2, 1881	..	2640	5528	1448	1611	8587	32	..	3806	143	3949
3 „ „ July 2, 1881	..	2640	5569	1465	1631	8665	19	..	2249	124	2373
3 „ „ Oct. 1, 1881	..	2640	5609	1484	1652	8745	8	..	3893	332	4225
3 „ „ Jan. 7, 1882	..	2640	5651	1502	1723	8876	12	..	3719	592	4311
3 „ „ April 8, 1882	..	2640	5692	1521	1765	8978	12	..	2417	133	2550
3 „ „ July 8, 1882	..	2640	6742	1561	1842	10145	9	..	3225	203	3428
3 „ „ Oct. 7, 1882	..	2640	6797	1580	1858	10235	10	..	5038	754	5792
3 „ „ Jan. 6, 1883	..	2640	6832	1600	1889	10321	12	..	3506	1121	4627
3 „ „ April 7, 1883	..	2640	6876	1620	1913	10409	5	..	3012	570	3582
3 „ „ July 7, 1883	..	2640	6921	1639	1861	10421	13	..	2895	1799	4694
3 „ „ Oct. 6, 1883	..	2640	6966	1662	1850	10478	50	..	4275	1506	5781
3 „ „ Jan. 5, 1884	..	2640	7011	1680	1876	10567	38	..	4546	786	5332
3 „ „ April 5, 1884	..	2640	7057	1712	1897	10666	35	..	4146	190	4336
3 „ „ July 5, 1884	..	2640	7103	1722	1963	10788	32	..	4352	319	4671
3 „ „ Oct. 4, 1884	..	2640	7150	1745	1986	10881	29	..	6253	356	6609
3 „ „ Jan. 3, 1885	..	2640	7198	1766	2011	10975	82	..	5800	317	6117
3 „ „ April 4, 1885	..	2640	7246	1789	2041	11076	26	..	4919	150	5069
3 „ „ July 4, 1885	..	2640	7296	1811	2066	11173	57	..	6350	287	6637
3 „ „ Oct. –, 1885	..	2640	8346	1834	2090	12270	48	..	6975	741	7716
3 „ „ Jan. 2, 1886	48	2640	8409	1877	2115	12401	73	..	4936	379	5315
3 „ „ April 3, 1886	121	2640	8460	1901	2241	12602	34	..	4680	164	4844
3 „ „ July 3, 1886	155	2640	8511	1924	2269	12704	20	..	4168	856	5024
3 „ „ Oct. 2, 1886	175	2640	8564	1948	2297	12809	51	..	8365	434	8799
3 „ „ Jan. 1, 1887	226	2640	8617	1971	2376	12964	74	..	5935	719	6654
3 „ „ April 2, 1887	300	2640	8672	1995	2330	12997	62	..	3800	462	4262
3 „ „ July 2, 1887	361	2640	8726	2020	2359	13105	31	..	4319	701	5020
3 „ „ Oct. 1, 1887	392	2640	8780	2043	2388	13214	11	..	5465	1154	6619
3 „ „ Jan. 7, 1888	404	2640	8835	2071	2418	13324	2	..	5526	884	6410
3 „ „ April 7, 1888	404	2640	8892	2097	2488	13477	..	198	3336	908	4244
3 „ „ July 9, 1888	207	2640	9949	2123	2579	13651	..	64	1741	1163	2904
3 „ „ Oct. 6, 1888	143	2640	9008	2149	2767	13924	..	38	6873	1565	8438
3 „ „ Jan. 5, 1889	104	2640	9068	2176	2911	14155	..	83	5239	1178	6417
3 „ „ April 6, 1889	20	2640	9128	2208	2946	14277	..	12	4282	799	5081
3 „ „ July 6, 1889	8	2640	9190	2230	2948	14368	..	150	3114	1913	5027
3 „ „ Oct. 5, 1889	..	2640	9252	2257	3014	14523	..	40	7041	2136	9177
3 „ „ Jan. 4, 1890	..	2640	9314	2285	3178	14777	..	145	5410	1168	6578
3 „ „ April 5, 1890	..	2640	9377	2313	3217	14907	..	263	4118	867	4985
3 „ „ July 5, 1890	..	2640	9436	2346	3257	15039	..	210	3241	1161	4402

* Share Capital reduced from £1 to 8s. per share.
† Including bad debts of £553, and formation expenses of £269.

THE

SCOTTISH

Co-operative Wholesale Society

LIMITED.

PLATES, ADVERTISEMENTS, STATISTICS, &c.,

PAGES 95 TO 127.

TO THE MEMBERS.

GENTLEMEN,

IF the Wholesales' "Annual" for 1891 should be found to re-echo in any way the statements of former issues, it will be in the repetition of the facts and figures which indicate the continued progress of the movement. In this respect the present issue will possess a tone of sameness with its predecessors—a tone, however, with which we are not expected to find fault or to grumble overmuch. We rejoice in the position the movement has attained, and are hopeful, from the steady and hard-reasoned advances it has made, that still greater triumphs await its evangel in the future. We are painfully conscious of the difficulties, dangers, and oppositions which crowd the co-operative path—they meet us every day; but as we have neither lost heart nor ground in the past, so neither are we timid as to the results of future efforts.

Co-operation continues more and more to engage the public mind, and to enlist its sympathies. The agencies established to promote the varying phases of the movement, and to meet the predilections of different localities, show an increasing attractiveness, and continue to draw a gathering amount of patronage from friends, and attention from outsiders. The methods and principles of co-operation are now largely accepted as the true solvent of our labour and social difficulties, by men who formerly saw nothing in these beyond a new manner and style of shopkeeping. These accessions come from and belong to all classes of the community, and range themselves within our ranks from motives which differ at

once in kind and degree. As was naturally to be expected, the industrial orders have furnished by far the larger number of our recruits. These orders have reaped, and are still reaping, the greatest benefits which the new social system has to bestow—though it is no less true, if less easy of explanation, that the most outspoken opponents of our methods are also found among the working classes. But capitalists, manufacturers, and other large employers of labour have been attracted to the movement; and, looking at it from an industrial and economic point of view, have regarded it with such favour as to accept its methods as the best and most fairly-balanced means of reconciling certain of the conflicting claims of labour and capital.

Neither can this expansion of our movement in the sympathies of the general public be regarded as, in any sense, a merely theoretical and abstract acceptance of our principles. For, while these have found a wider and more friendly greeting, the practical issues dependent upon them have, during the past year, been worked out in Scotland by an ever-increasing number of agencies and disciples. The ordinary retail societies have increased in number, while some advance has been made in productive association during the same period. The older, and what may be called established societies, have also shown a wonderful elasticity of growth in an increase of membership, business, wealth, and influence. No better criterion of this growth can be found than in a comparison of the figures furnished in the balance sheets of the Scottish Wholesale Society for the September quarters of 1889 and 1890. For, while it may be admitted that the membership of the Wholesale does not include every co-operative society in Scotland, the majority is so preponderating that results shown in our quarterly balance sheets may fitly be taken as indicating the tendencies of the whole movement north of the Tweed. The balance sheet for the quarter ending

28th September, 1889, showed the total shares held by societies in the federation to be 103,431, while the corresponding balance sheet for 1890 showed these had then swelled to 115,267—being an increase of 11,836 shares, equal to 11·5 per cent. The volume of trade done by the Scottish Wholesale with its members and non-members in the earlier of these periods was £603,174, while in the latter this had grown to £655,931—an increase of £52,757, or 8·74 per cent. In the same way the total claims or investments held by societies in the Scottish Wholesale had grown from £417,466 in 1889 to £497,140 in 1890, giving an increase of £79,674, or equal to 19 per cent. These figures indicate not only the vitality and rate of growth in the co-operative societies of Scotland, but also a continued confidence in the methods and policy of the federation. An examination of the figures in the purely productive departments would show, during the period referred to, equally satisfactory results. The operations of the Scottish Wholesale secured to participants in the earlier of the above quarters a profit of £12,741. 15s. 11d., a sum which, in the corresponding quarter of 1890, had expanded to £16,789. 6s. 4d. The whole of this large amount may be set down as savings secured to the working classes of the country by the adoption of co-operative principles and methods of business, and serve to point the moral that closer unity with and greater loyalty to the central institutions of the movement would prove the means of obtaining still larger benefits. On the question of bonus to labour, and the sums paid under that head to the employés of the federation, your committee respectfully direct attention to the statement furnished on another page.

The figures we have given in the foregoing remarks may be left to speak for themselves. They exhibit results which show that the policy approved by the members is marked with a power of indefinite progress and expansion. The Scottish Wholesale Society, as an

institution fitted to give practical illustration of the benefits to be derived from the adoption of co-operative principles in their application to wholesale and productive enterprises, must be regarded as one evidently beneficial and successful. It has not only secured and distributed financial and trading advantages, it has tended to bind and keep the co-operative body together, to infuse the necessity of a common policy, and also, in a great degree, to maintain a desire to reach the higher ideals of the movement. These features of action and enterprise—as they have distinguished our history in the past—will not, we hope, be diminished in frequency or strength in the opportunities and responsibilities which the future will be sure to bring. With best wishes for our readers and members, we beg to present, with the "Compliments of the Season," our "Annual" for 1891.

We are,

Yours respectfully,

THE COMMITTEE.

Twenty-two Years' Wholesale Distribution in Scotland.

SCOTTISH
Co-operative Wholesale Society Limited.

Years.	Capital.	Sales.	Profits.	Years.
	£	£	£	
1868, 13 weeks	1,795	9,697	48	13 weeks, 1868
1869, 52 „	5,175	81,094	1,304	52 „ 1869
1870, 50 „	12,543	105,249	2,419	50 „ 1870
1871, 52 „	18,009	162,658	4,131	52 „ 1871
1872, 52 „	30,931	262,530	5,435	52 „ 1872
1873, 52 „	50,433	384,489	7,446	52 „ 1873
1874, 52 „	48,982	409,947	7,553	52 „ 1874
1875, 52 „	56,751	430,169	8,233	52 „ 1875
1876, 51 „	67,219	457,529	8,836	51 „ 1876
1877, 52 „	72,568	589,221	10,925	52 „ 1877
1878, 52 „	83,174	600,590	11,969	52 „ 1878
1879, 52 „	93,077	630,097	14,989	52 „ 1879
1880, 52 „	110,179	845,221	21,685	52 „ 1880
1881, 54 „	135,713	986,646	23,981	54 „ 1881
1882, 52 „	169,429	1,100,588	23,220	52 „ 1882
1883, 52 „	195,396	1,253,154	28,366	52 „ 1883
1884, 52 „	244,186	1,300,331	29,435	52 „ 1884
1885, 52 „	288,946	1,438,220	39,641	52 „ 1885
1886, 60 „	333,653	1,857,152	50,398	60 „ 1886
1887, 53 „	367,309	1,810,015	47,278	53 „ 1887
1888, 52 „	409,668	1,963,853	53,538	52 „ 1888
1889, 52 „	480,622	2,273,782	61,756	52 „ 1889
1890, 26 „	526,297	1,155,324	33,447	26 „ 1890
Totals.	526,297	20,107,567	496,036	Totals.

COMMENCED SEPTEMBER, 1868.

MACLURE, MACDONALD & CO.

WM. MAXWELL.
President.

FINANCE COMMITTEE.

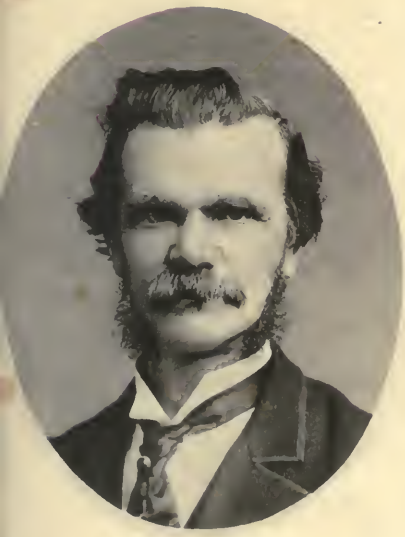
ANDREW MILLER.

WM. MAXWELL. GEORGE SMITH.

GROCERY COMMITTEE.

JOHN ARTHUR.

DANIEL THOMSON. ANDREW LAIDLAW.



DRAPERY COMMITTEE.

T. C. M'NAB.

HENRY MURPHY.

ROBT. MIDDLETON

PRODUCTIVE COMMITTEE.

JOHN PEARSON.

DAVID GRANT. ISAAC M'DONALD.

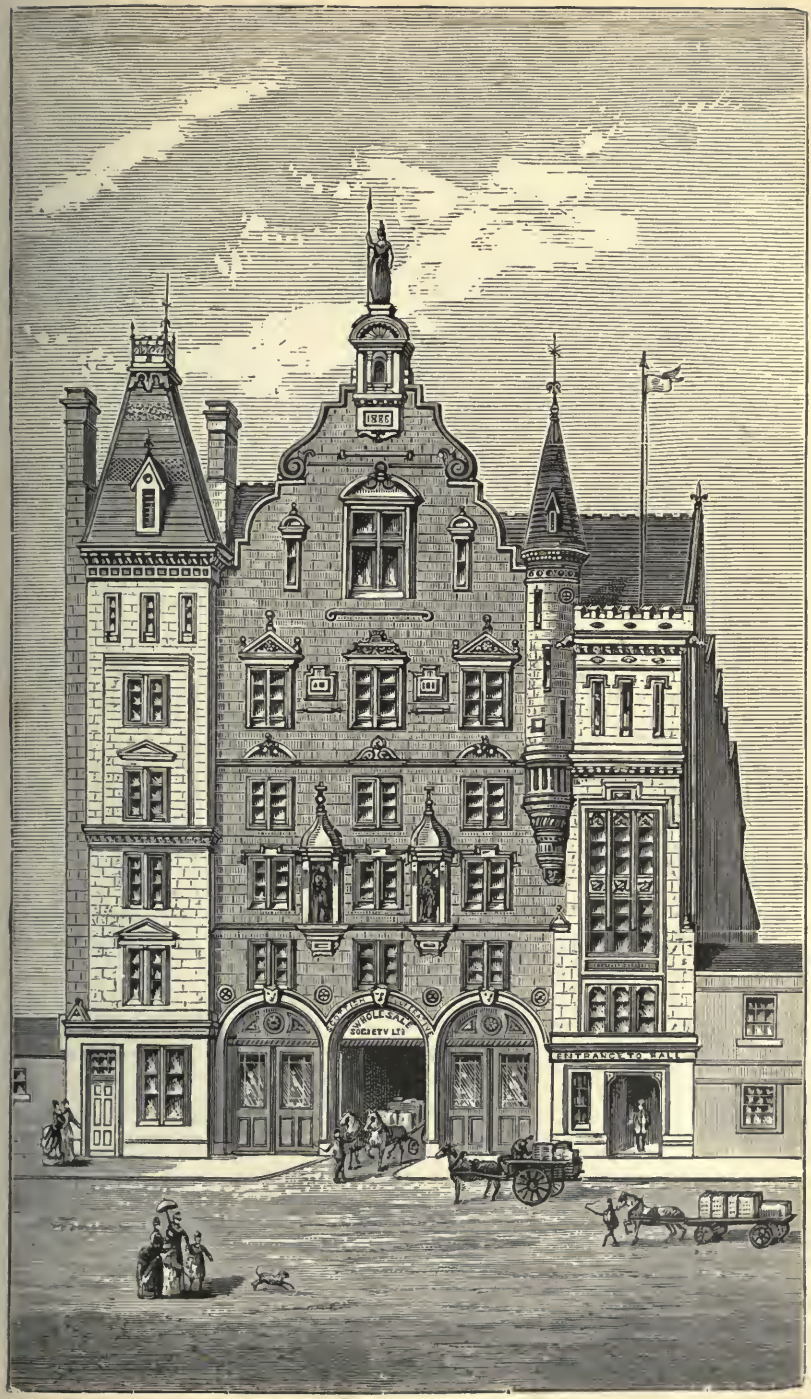
AUDITORS.

JOHN ALEXANDER.

JAMES INGLIS. JOHN MILLEN.

REGISTERED OFFICE, GROCERY AND PROVISION AND DRAPERY WAREHOUSES, 119, PAISLEY ROAD, GLASGOW.

See pages 109 and 114.



GLASGOW GROCERY AND PROVISION WAREHOUSE AND HALL,
CLARENCE STREET.

GLASGOW BOOT AND SHOE AND FURNITURE WAREHOUSES, DUNDAS STREET.

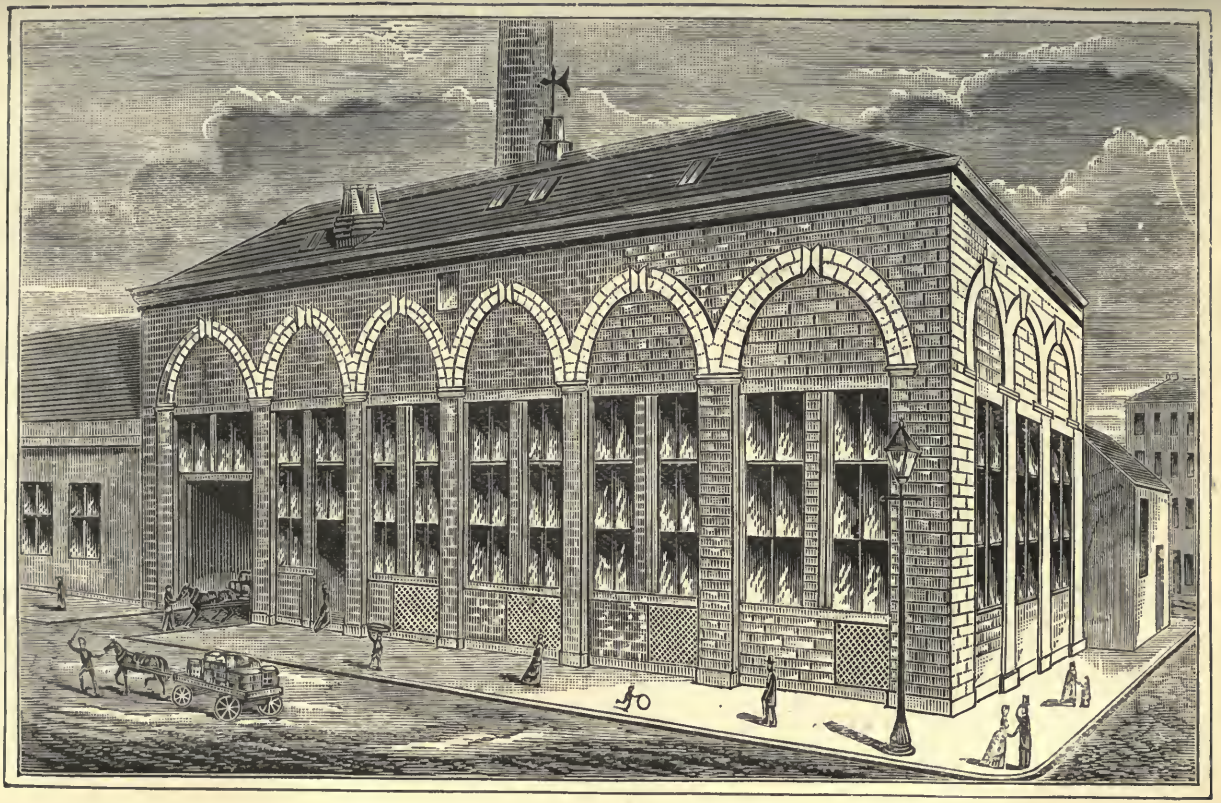
See pages 121 and 122.

LEITH GROCERY AND PROVISION WAREHOUSE, LINKS PLACE.

See page 110.

KILMARNOCK GROCERY AND PROVISION WAREHOUSE, GRANGE PLACE.

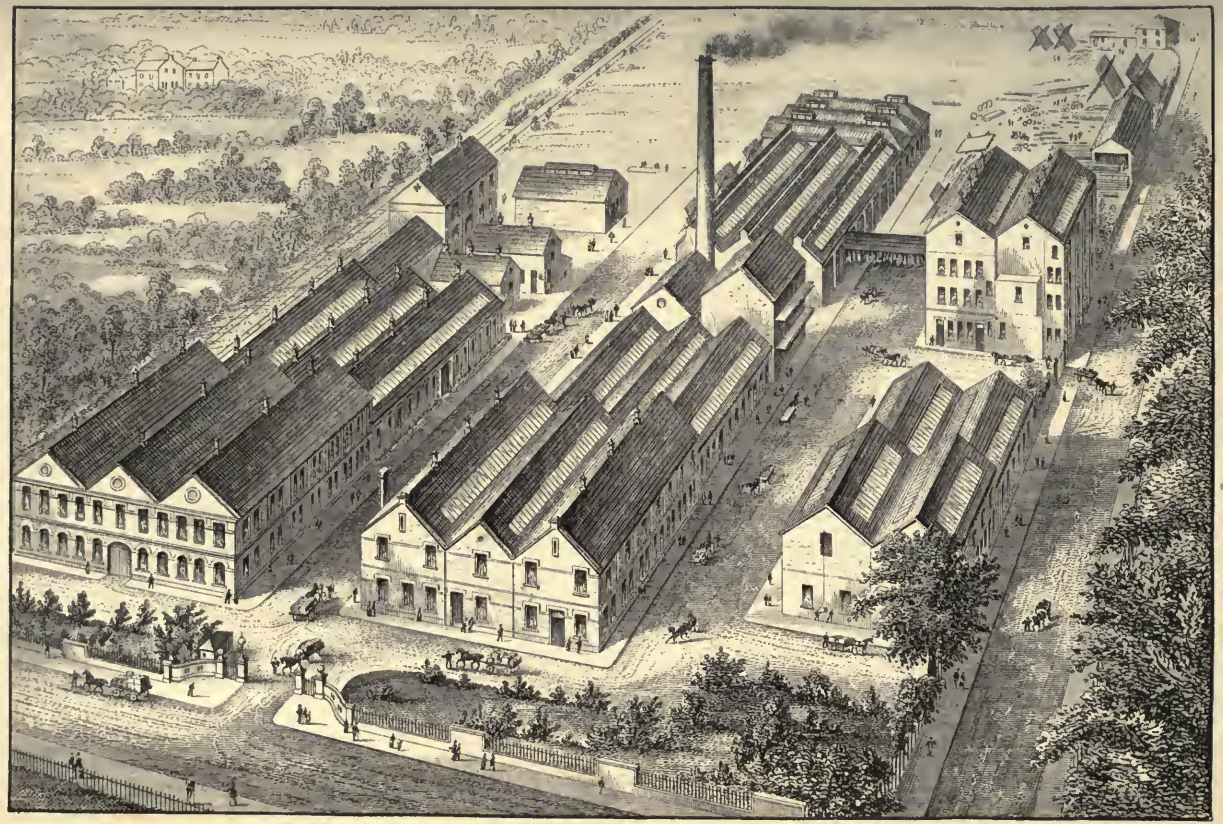
See page 111.



DUNDEE GROCERY AND PROVISION WAREHOUSE, TRADES LANE.

See pages 112 and 113.

ENNISKILLEN DEPOT.—BUTTER, EGGS, AND BACON.



PRODUCTIVE WORKS, SHIELDHALL.

Scottish Co-operative Wholesale Society

LIMITED.

Enrolled 20th April, 1868, under the provisions of the Industrial and Provident Societies Act, 20th August, 1867, 30 and 31 Vict., cap. 117, sec. 4.

BUSINESS COMMENCED 8th SEPTEMBER, 1868.

REGISTERED OFFICE, GROCERY AND PROVISION WAREHOUSE:

119, PAISLEY ROAD, GLASGOW.

DRAPERY WAREHOUSE:

DUNDAS AND ST. JAMES' STREETS, GLASGOW.

BOOT AND SHOE AND FURNITURE WAREHOUSE:

DUNDAS STREET, GLASGOW.

BOOT AND SHOE FACTORY, CLOTHING FACTORY, CABINET WORKSHOP, PRINTING WORKSHOP, AND PRESERVE WORKS:

SHIELDHALL, NEAR GOVAN, GLASGOW.

BRANCHES:

LINKS PLACE, LEITH.

GRANGE PLACE, KILMARNOCK.

TRADES LANE, DUNDEE.

ENNISKILLEN, IRELAND.

TEA AND COFFEE DEPARTMENT:

HOOPER SQUARE, LEMAN STREET, WHITECHAPEL, LONDON.

BANKERS:

THE UNION BANK OF SCOTLAND LIMITED.

HEAD OFFICES:

GLASGOW:	LONDON:	EDINBURGH:
Ingram Street.	62, Cornhill, E.C.	George Street.
MANAGER:	MANAGER:	MANAGER:
CHARLES GAIRDNER.	JOHN A. FRADGLEY.	HENRY HAY NORIE.

General Committee.

PRESIDENT:

MR. WILLIAM MAXWELL, 36, Woodburn Terrace, Morningside, Edinburgh.

SECRETARY:

MR. ANDREW MILLER, Moss Road, Tillicoultry.

DIRECTORS:

MR. ISAAC MACDONALD .....7, Knoxland Street, Dumbarton.
MR. DANIEL THOMSON .....56, Campbell Street, Dunfermline.
MR. GEORGE SMITH.....Kilmarnock.
MR. DANIEL Mc.NAB.....Edinburgh.
MR. JOHN ARTHUR .....4, Barclay Street, Paisley.
MR. ALEX. LAIDLAW.....Edinburgh.
MR. HENRY MURPHY .....Lanark.
MR. ROBERT MIDDLETON.....315, High Street, Perth.
MR. DAVID GRANT.....Kinning Park.
MR. JOHN PEARSON .....Ludgate Place, Alloa.

SUB-COMMITTEES.

FINANCE:

MR. WILLIAM MAXWELL. | MR. ANDREW MILLER.
MR. GEORGE SMITH.

BUILDING:

MR. WILLIAM MAXWELL. | MR. ISAAC MACDONALD.
MR. ANDREW MILLER.

PRODUCTION:

MR. ISAAC MACDONALD. | MR. DAVID GRANT.
MR. JOHN PEARSON.

DRAPERY:

MR. HENRY MURPHY. | MR. ROBERT MIDDLETON.
MR. DANIEL Mc.NAB.

GROCERY:

MR. JOHN ARTHUR. | MR. ALEX. LAIDLAW.
MR. DANIEL THOMSON.

AUDITORS.

MR. JOHN ALEXANDER, Paisley. | MR. JOHN MILLEN, Rutherglen.
MR. JAMES INGLIS, Paisley.

Officers of the Society.

MANAGER.

Mr. JAMES MARSHALL, Glasgow.

ACCOUNTANT.

Mr. ROBT. MACINTOSH, Glasgow.

CASHIER.

Mr. ALLAN GRAY, Glasgow.

BUYERS, SALESMEN, &c.

Grocery and Provision Departments.

Mr. E. ROSS	Glasgow.
Mr. J. MACDONALD	Glasgow.
Mr. R. REYBURN	Glasgow.
Mr. W. F. STEWART	Leith.
Mr. PETER ROBERTSON	Leith.
Mr. W. LAIRD	Kilmarnock.
Mr. J. BARROWMAN	Dundee.
Mr. WM. WHYTE	Enniskillen.
Mr. CHARLES FIELDING (Tea)	London.
Mr. JOHN M'INTYRE (Potatoes)	Glasgow.
Mr. JOHN WHITE (Potatoes)	Leith.
Mr. N. ANDERSON (Traveller)	Glasgow.
Mr. WM. DUNCAN (Cattle Buyer)	Glasgow.
Mr. WM. CARMICHAEL	Kilmarnock.

Mr. DAVID GARDINER (Drapery Department)	Glasgow.
Mr. J. D. STEWART (Traveller, Drapery Department)	Glasgow.
Mr. JAMES WARDROP (Traveller ,, ,,)	Glasgow.
Mr. ROBERT Mc.INNES (Tailoring Factory)	Glasgow.
Mr. ALEX. L. SCOTT (Boot and Shoe Factory)	Glasgow.
Mr. JOHN BRUCE (Traveller, Boot Department)	Glasgow.
Mr. WILLIAM MILLER (Furniture Department)	Glasgow.
Mr. R. A. BROWN (Furniture Traveller)	Glasgow.
Mr. DAVID CAMPBELL (Printing)	Glasgow.
Mr. JOHN WILLOCKS (Clothing Factory)	Glasgow.
Mr. HENRY HAGGERTY (Preserve Works)	Glasgow.

Business Arrangements.

Registered Office : 119, PAISLEY ROAD, GLASGOW.

Branches : Links Place, Leith; Grange Place, Kilmarnock; Trades Lane, Dundee; Enniskillen, Ireland; Hooper Square, Leman Street, Whitechapel, London.

BUSINESS ARRANGEMENTS.

Societies or Companies Registered (to *which our trade is strictly confined*) desirous of opening an account with this Society, will please forward a copy of the registered Rules and latest issued balance sheet. If newly started, a statement showing the number of members; value of shares; amount subscribed for and paid up; weekly turn-over expected; also, if credit is allowed, the amount per member in proportion to the capital paid up. The information forwarded will be carefully considered, and if found satisfactory, goods will be supplied on the usual business terms.

CASH PAYMENTS.

Besides the usual invoice sent with each consignment of goods, a weekly statement of accounts (see page 101) is sent to each society, so that there may be no delay in remitting the amount due for the month, the limit of credit allowed by this Society. Interest at the rate of 5 per cent per annum is charged on all overdue accounts, and by a resolution adopted at a general meeting of the members, the committee of management are instructed and empowered to examine the books of defaulting societies and take the necessary steps to protect the interest of the federated societies.

BUSINESS NOTICE.

When ordering goods state price or brand of the article wanted, also mode of transit, and name of station to which the goods are to be sent. Orders for the different departments should be written on separate slips. Goods not approved of must be returned at once and intact. No claim for breakage, short weight, &c., can be entertained unless made within six days after goods are received. Delay in delivery should be at once advised.

WEEKLY STATEMENT OF ACCOUNT.

5TH WEEK. LEDGER FOLIO, 929.
73RD QUARTER. 119, PAISLEY ROAD,
GLASGOW, *September 3rd, 1887.*

The Grahamston and Bainsford Co-operative Society Limited.

Dr. To The Scottish Co-operative Wholesale Society Limited. *Cr.*

GOODS.

Date.	Amount of each Invoice. £ s. d.	Balance last Statement. £ s. d.
		698 7 2
Aug. 30..	0 4 3	....
,, 30..	18 11 7	....
,, 30..	29 0 8	....
,, 30..	32 4 0	....
,, 30..	0 17 7	....
,, 30..	4 10 0	....
,, 30..	4 4 0	....
,, 30..	3 2 6	....
,, 31..	0 6 6	....
,, 31..	0 8 3	....
,, 31..	0 10 10	....
,, 31..	0 8 3	....
,, 31..	1 5 0	....
,, 31..	0 10 11	....
,, 31..	59 16 9	....
,, 31..	0 11 3	....
,, 31..	7 3 5	....
Sept. 1..	2 10 6	....
,, 1..	4 17 6	....
,, 1..	0 15 2	....
,, 3..	0 6 6	....
,, 3..	0 9 2	....
,, 3..	17 10 0	....
,, 3..	0 18 0	....
,, 3..	3 10 6	....
,, 3..	5 13 8	....
,, 3..	12 11 1	....
,, 3..	4 18 7	....
,, 3..	5 3 6	....
,, 3..	0 12 9	....
,, 3..	0 1 10	....
,, 3..	2 14 9	....
,, 3..	1 8 6	....
,, 3..	27 12 8	....
		255 10 5
	To balance,	....
	£	953 17 7

CASH AND CREDITS.

Date.	Cash. £ s. d.	Credit. £ s. d.	Totals. £ s. d.
Aug. 30..	....	0 5 0	....
,, 31..	....	1 0 0	....
,, 31..	....	0 12 9	....
,, 31..	....	0 12 10	....
Sept. 1..	....	0 5 6	....
,, 1..	....	0 1 0	....
,, 1..	....	1 3 6	....
,, 1..	....	2 7 0	....
,, 2..	....	0 12 9	....
,, 2..	....	0 12 9	....
,, 2..	....	0 14 9	....
,, 2..	....	0 10 0	....
,, 3..	....	0 15 6	....
,, 3..	....	10 11 1	....
,, 3..	....	0 15 6	....
,, 3..	....	1 12 0	....
			22 11 11
,, 2..	600 0 0	....	600 0 0
		By balance,	331 5 8
		£	953 17 7

If the above Statement differs from your Books, we shall be glad if you will point out the difference at once.

Terms of Membership.

MEMBERSHIP.

The Rules relating to the admission of members are:—

No. 6.—The society (that is, the Wholesale) shall consist of such co-operative societies, registered or deemed to be registered under the Industrial and Provident Societies Act, 1876, or Companies Act, 1862–67, as have been admitted by the committee, and each admission must be entered in the minute book of the society. Every application for shares must be sanctioned by a resolution of a general meeting of any society or company making such. The application must be made on the printed form supplied, and duly attested by the signatures of the president, secretary, and three members thereof, and stamped with such society's seal. Every society or company making an application for shares shall state the number of its members, and take not less than one share for each member, and shall increase the number annually as its members increase, in accordance with its last return to the Registrar; but no member other than a society registered under the Industrial and Provident Societies Act, 1876, shall hold an interest in the funds exceeding £200.

No. 7.—The capital of the society shall be raised in shares of fifteen shillings each. Every member on admission shall pay the sum of not less than one shilling on each share taken up, and the unpaid portion of the shares may be paid up by dividends and interest; but any member may pay up shares in full or part at any time.

Application Form.

Whereas, by a resolution of the.....Co-operative Society Limited, passed at a general meeting held on the....day of....., it was resolved to take up.....shares (being one share of fifteen shillings for each member), said shares being transferable, in the Scottish Co-operative Wholesale Society Limited, and to accept the same on the terms and conditions specified in the Rules. Executed under the seal of the society on the....day of ..... Attested by

.....
.....
.....
} *Three Members.*

BENEFITS DERIVED FROM MEMBERSHIP.

(*a*) The liability of the member is limited, each member being only responsible for the value of the shares held.

(*b*) Members receive double the rate of dividend on purchases paid to non-members.

(*c*) Share capital is paid 5 per cent per annum.

(*d*) Members have a share in the management of the Wholesale in proportion to the amount of goods bought, as each society, besides one vote in right of membership, is allowed an extra vote for each £1,000 worth of goods bought.

These advantages, added to the special benefits secured by the leading position of the Wholesale, will, we trust, induce societies as yet non-members to carefully reconsider the question, and take the necessary steps to secure to their members the full benefits of co-operative distribution.

CORRESPONDENCE.

All letters must be addressed to the society, and not to individuals. Addressed envelopes are supplied at cost price. Separate slips ought to be used for the different departments—the Accountant's, Grocery and Provision, Drapery, Boot and Shoe, Furniture. The slips can all be enclosed in the one envelope. Attention to this simple rule will greatly facilitate the despatch of goods, and ensure promptitude in answering inquiries; it will also aid in the classification of the letters for reference in any case of irregularity or dispute.

Cash Remittance.

Cheques must be made payable to the Society. If remitted through the Union Bank of Scotland Limited, the usual commission charged will be saved.

LIST OF BRANCHES OF THE UNION BANK OF SCOTLAND

Limited.

Head Offices:—Glasgow, Ingram Street; Edinburgh, George Street.

London Office:—62, Cornhill, E.C.

Branches:

Aberdeen.
Aberdeen, George Street.
,, West End.
Aberfeldy.
Aberlour, Strathspey.
Alloa.
Alva.
Auchterarder.
Auchtermuchty.
Ayr.
Ballater.
Banchory.
Banff.
Barrhead.
Barrhill.
Bathgate.
Beith.
Blair-Athole (sub to Pitlochrie).
Blairgowrie.
Braemar.
Brechin.
Bridge of Allan.
Buckie, Banffshire.
Castle-Douglas.
Coatbridge.
Coupar-Angus.
Crieff.
Cullen.
Dalbeattie.
Dalry, Ayrshire (open on Thursdays-sub to Beith)
Dalry, Galloway.
Darvel (sub to Galston).
Doune.
Dumbarton.
Dumfries.
Dunblane.
Dundee.
Dunkeld.
Dunning.
Dunoon.
Edinburgh, Downie Place.
,, Forrest Road.
,, Haymarket.
,, Hunter Square
Edinburgh, Morningside.
,, Newington.
,, Norton Park.
,, S. Morningside (sub to Morningside).
Edzell.
Elgin.
Ellon.
Errol.
Fochabers.
Forfar.
Fraserburg.
Galston.
Gatehouse.
Girvan.
Glasgow, Anderston.
,, 174, Argyle St.
,, Bridgeton Cross.
,, Cowcaddens.
,, Hillhead.
,, Kinning Park.
,, St. Vincent St.
,, Tradeston.
,, Trongate.
Gourock.
Govan.
Greenock.
Hamilton.
Helensburgh.
Huntly.
Inverary.
Inverness.
Inverurie.
Irvine.
Johnstone.
Keith.
Killin.
Kilmarnock.
Kincardine.
Kirkcaldy.
Kirkwall.
Kirriemuir.
Ladybank.
Largs.
Larkhall.
Leith.
Lerwick.
Leslie.
Lochgelly, Fifeshire.
Lochgilphead.
Macduff.
Maryhill.
Maybole.
Mearns (open on Tuesdays and Fridays—sub to Barrhead).
Millport.
Moffat.
Moniaive.
New Pitsligo.
Paisley.
Partick.
Perth.
Peterhead.
Pitlochrie.
Port-Glasgow.
Portsoy.
Renfrew.
Rosehearty.
St. Margaret's Hope, Orkney.
Scalloway, Shetland (open on Tuesdays and Fridays—sub to Lerwick).
Shawlands, Glasgow.
Stewarton.
Stirling.
Stonehouse (open on Mondays, Wednesdays, and Saturdays—sub to Larkhall).
Stranraer.
Strathaven.
Stromness.
Tarbert, Lochfine.
Tarland.
Thornhill.
Tillicoultry.
Troon.
Turriff.
Wick.

STATEMENT Showing the PROGRESS *of the* SOCIETY FROM ITS COMMENCEMENT *in September, 1868, till date, with* COMPARISONS *of* SALES, *and other information.*

	Year or Quarter ending	Number of Shares Subscribed.	Capital: Includes Share, Loan, Reserve, and Insurance Funds.	Net Sales.	Gross Total.	Increase on Corresponding Quarter or previous Year.	Rate per Cent Inc.	Expenses.	Rate per £ on Sales.
1st Quarter....	December 7, 1868..	..	£1,795	£9,697	£	£		£153	3·8
1st Year—52 wks	December 5, 1869..	..	5,174	81,094	90,791	..	..	1,035	3·0
2nd ,, 50 ,,	November 19, 1870..	..	12,542	105,249	196,041	24,155	29·7	1,549	3·5
3rd ,, 52 ,,	,, 18, 1871..	..	18,009	162,658	358,699	57,408	54·5	2 180	3·2
4th ,, ,, ,,	,, 16. 1872..	18,708	30,931	262,530	621,230	99,872	61·4	3,469	3·1
5th ,, ,, ,,	,, 15, 1873..	21,271	50,433	384,489	1,005,719	121,958	46·4	5,055	3·1
6th ,, ,, ,,	,, 14, 1874..	24,651	48,981	409,947	1,415,667	25,458	6·6	6,696	3·9
7th ,, ,, ,,	,, 13, 1875..	27,112	56,750	430,169	1,845,836	20,222	4·9	7,137	3·9
8th ,, 51 ,,	,, 4, 1876..	29,008	67,218	457,529	2,303,365	27,359	6·3	7,540	3·9
9th ,, 52 ,,	,, 3, 1877..	31,945	72,568	589,221	2,892,586	131,692	28·7	8,648	3·5
10th ,, ,, ,,	,, 2, 1878..	34,830	83,173	600,590	3,493,177	11,369	1·9	10,095	4 0
11th ,, ,, ,,	,, 2, 1879..	36,008	93,076	630,097	4,123,275	29,507	4·9	11,117	4·2
12th ,, ,, ,,	October 30, 1880..	41,584	110,179	845,221	4,968,496	215,124	34·1	13,020	3·7
13th ,, 53 ,,	November 5, 1881..	49,073	135,713	986,646	5,955,143	141,424	16·7	15,757	3·8
14th ,, 52 ,,	,, 4, 1882..	53,684	169,428	1,100,588	7,055,732	113,942	11·5	19,686	4·2
15th ,, ,, ,,	,, 3, 1883..	59,529	195,396	1,253,154	8,308,886	152,565	13 8	22,120	4·2
16th ,, ,, ,,	,, 1, 1884..	65,331	244,186	1,300,331	9,609,218	47,177	3 7	24,307	4·5
17th ,, ,, ,,	October 31, 1885..	70,066	288,945	1,438,220	11,047,438	137,888	10·6	27,314	4·5
18th ,, 60 ,,	December 25, 1886..	79,874	333,653	1,857,152	12,904,590	418,931	29·1	36,942	4·7
19th ,, 53 ,,	,, 31, 1887..	87,220	367,309	1,810,015	14,714,606	153,965	9·2	35,800	4·7
20th ,, 52 ,,	,, 29, 1888..	96,521	409,668	1,963,853	16.678,460	178,897	10·0	39,411	4·8
21st ,, ,, ,,	,, 28, 1889..	107,004	480,622	2,273,782	18,952,242	309,928	15·7	44,311	4·6
86th Quar.–13 wks.	March 29, 1890..	108,550	517,929	549,485	19,501,727	39,348	7·7	11,441	5·0
87th ,, ,, ,,	June 28, 1890..	109,647	526,297	605,839	20,107,567	37,419	6·6	12,342	4·8

STATEMENT Showing the PROGRESS *of the* SOCIETY FROM ITS COMMENCEMENT *in September, 1868, till date, with* COMPARISONS *of* SALES, *and other information.—Continued.*

	Year or Quarter ending	Net Profit.	Total Net Profit.	Average Dividend.	Reserve and Insurance Funds.			Depreciations allowed on Buildings and Fixtures.	
					Added.	Withdrawn.	Total Amount.	Amount.	Total Amount.
1st Quarter....	December 7, 1868..	£48	£	d.	£48	£	£	£9	£
1st Year—52 wks	December 5, 1869..	1,303	1,352	3¼	63	..	112	129	138
2nd ,, 50 ,,	November 19, 1870..	2,418	3,770	4¾	324	..	436	111	250
3rd ,, 52 ,,	,, 18, 1871..	4,131	7,902	5¼	578	..	1,014	205	455
4th ,, ,, ,,	,, 16, 1872..	5,435	13,337	4¾	471	..	1,485	346	801
5th ,, ,, ,,	,, 15, 1873..	7,445	20,783	4¾	355	141	1,700	657	1,439
6th ,, ,, ,,	,, 14, 1874..	7,553	28,336	4¼	1,049	104	2,644	784	2,243
7th ,, ,, ,,	,, 13, 1875..	8,232	36,569	4	338	580	2,402	321	2,565
8th ,, 51 ,,	,, 4, 1876..	8,836	45,405	4	791	672	2,522	452	3,017
9th ,, 52 ,,	,, 3, 1877..	10,925	56,330	4	918	343	3,097	485	3,503
10th ,, ,, ,,	,, 2, 1878..	11,968	68,298	4	721	269	3,549	1,155	4,659
11th ,, ,, ,,	,, 2, 1879..	14,988	83,287	4¾	2,215	160	5,606	1,336	5,995
12th ,, ,, ,,	October 30, 1880..	21,685	104,973	6¾	3,134	336	8,404	1,086	7,082
13th ,, 53 ,,	November 5, 1881..	23,981	128,954	6	3,086	2,694	8,796	1,653	8,735
14th ,, 52 ,,	,, 4, 1882..	23,219	152,174	5½	3,824	334	12,286	1,688	10,424
15th ,, ,, ,,	,, 3, 1883..	28,365	180,540	5¾	3,801	1,530	14,557	2,420	12,844
16th ,, ,, ,,	,, 1, 1884..	29,434	209,974	5½	4,428	1,525	17,471	2,039	14,884
17th ,, ,, ,,	October 31, 1885..	39,641	249,616	6¾	4,393	610	21,254	3,475	18,359
18th ,, 60 ,,	December 25, 1886..	50,398	300,014	6½	5,528	1,315	25,566	2,980	21,340
19th ,, 53 ,,	,, 31, 1887..	47,278	347,293	6¾	8,474	1,389	32,651	3,019	24,360
20th ,, 52 ,,	,, 29, 1888..	53,538	400,832	6¼	7,615	3,392	36,874	8,170	32,530
21st ,, ,, ,,	,, 28, 1889..	61,756	462,588	6½	10,244	2,941	44,177	6,284	38,815
86th Quar.–13 wks.	March 29, 1890..	15,209	477,798	7	2,367	1,160	45,384	1,378	40,193
87th ,, ,, ,,	June 28, 1890..	18,238	496,036	7	2,486	316	47,554	1,464	41,658

GROCERY DEPARTMENT, GLASGOW.

Yearly Statement. Sales, Expenses, and Net Profit.

	Net Sales.				Expenses.	Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Stocks.
	Drapery and Boots.	Dundee.	Kilmarnock.	Grocery, Glasgow.	Total.				
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	d.	£ s. d.	d.	£
Quarter ending Dec. 7, 1868..	....	....	....	9,697 7 1	9.697 7 1	153 5 4	3·8	48 12 10	1·2	4,648
52 weeks „ „ 5, 1869..	....	....	....	81,094 2 6	81,094 2 6	1,035 12 8	3·0	1,303 15 0	3 8	5,478
50 „ „ Nov. 9, 1870..	....	....	....	105,249 12 4	105,249 12 4	1,549 17 2	3·5	2,418 9 2	5·6	9,060
52 „ „ „ 18, 1871..	....	....	....	162,658 7 7	162,658 7 7	2,180 18 3	3·2	4,131 8 6	6·0	14,000
52 „ „ „ 16, 1872..	....	....	....	262,530 19 10	262,530 19 10	3,469 18 4	3 1	5,435 3 9	4 9	21,050
52 „ „ „ 15, 1873..	....	....	....	384,489 4 0	384,489 4 0	5,055 15 7	3·1	7,445 19 1	4·5	24,510
52 „ „ „ 14, 1874..	....	....	....	409,947 7 9	409,947 7 9	6,696 14 2	3·9	7,553 5 2	4·4	24,700
52 „ „ „ 13, 1875..	....	....	....	430,169 7 11	430,169 7 11	7,137 15 5	3·9	8,232 11 6	4·5	29,400
51 „ „ „ 4, 1876..	42,952 0 10	....	....	414,576 19 6	457,529 0 4	7,540 2 8	3·9	8,836 2 3	4·6	39,550
52 „ „ „ 8, 1877..	50,654 14 2	....	....	507,582 14 4	558,237 8 6	8 196 19 7	3·5	10,443 15 6	4·4	39,510
52 „ „ „ 2, 1878..	56,480 17 7	....	....	467,342 1 0	523,822 18 7	8,976 5 4	4·1	10,289 0 10	4·7	40,130
52 „ „ „ 2, 1879..	60,046 3 9	....	....	481,949 12 2	541,995 15 11	9,832 8 6	4·3	12,625 11 3	5·5	50,400
52 „ „ Oct. 30, 1880..	83,856 9 10	....	....	615,601 5 5	699,457 15 3	10,880 2 11	3·7	17,908 0 6	6·0	43,190
53 „ „ Nov. 5, 1881..	102,157 0 11	11,121 15 7	....	679,534 6 4	792,813 2 10	12,930 11 8	3·9	18,439 1 3	5·5	63,380
6 months „ May 6, 1882..	53,190 8 0	10,385 14 5	12,982 1 4	336,413 13 0	412,971 16 9	8,080 8 7	4·4	8,270 16 9	4·8	61,920
6 „ „ Nov. 4, 1882..	....	....	....	383,834 1 3	383,834 1 3	5,299 13 4	3·3	7,539 19 0	4·7	34,620
52 weeks „ „ 3, 1883..	....	....	....	776,681 1 5	776,681 1 5	10,940 9 4	3·3	15,350 8 9	4·7	38,374
52 „ „ „ 1, 1884..	....	....	....	759,443 11 7	759,443 11 7	11,152 5 4	3·5	14,281 1 1	4·5	30,081
52 „ „ Oct. 31, 1885..	....	....	....	761,889 7 11	761,889 7 11	11,881 1 0	3·7	16,187 18 9	5·0	28,130
60 „ „ Dec. 25, 1886..	....	....	....	936,030 19 0	936,030 19 0	14,481 16 4	3·7	19,073 6 9	4·9	37,450
53 „ „ „ 31, 1887..	....	....	....	895,560 6 4	895,560 6 4	13,163 8 7	3·5	20,351 5 3	5·4	56,095
52 „ „ „ 29, 1888..	....	....	....	972,790 2 2	972,790 2 2	14,435 1 0	3·5	23,399 9 11	5·7	44,610
52 „ „ Dec. 28, 1889..	....	....	....	1,148,832 5 5	1,148,832 5 5	16,190 9 8	3·4	27,930 15 8	5·8	194,590
13 „ „ Mar. 29, 1890..	....	....	....	276,734 10 10	276,734 10 10	4,145 9 9	3·5	6,410 6 9	5·6	59,780
13 „ „ June 28, 1890..	....	....	....	293,517 3 10	293,517 3 10	4,345 1 10	3 5	6,362 7 0	5·1	58,000
Totals.....	449,337 15 1	21,507 10 0	12,982 1 4	12,554,100 10 6	13,037,987 16 11	199,751 12 4	3·6	280,268 12 3	5·1	58,000

GROCERY DEPARTMENT, LEITH.

Yearly Statement, showing Sales, Expenses, and Net Profit.

	Net Sales.	Expenses.	Rate of Pence per £.	Net Profit.	Rate of Pence per £.	Amount of Stock.
	£ s. d.	£ s. d.	d.	£ s. d.	d.	£
Year ending November 3, 1877—52 weeks....	30,984 0 9	451 17 0	3·5	481 12 9	3·7	4,590
,, ,, ,, 2, 1878 ,, ,, ...	76,767 11 1	1,119 10 4	3·5	1,679 0 11	5·2	3,000
,, ,, ,, 1, 1879 ,, ,, ...	88,101 15 11	1,284 16 8	3·5	2,363 8 3	6·4	6,480
,, ,, October 30, 1880 ,, ,, ...	145,764 0 3	2 140 6 2	3·5	3,777 4 2	6·2	8,410
,, ,, November 5, 1881—53 ,, ...	193,833 10 10	2,826 11 8	3·5	5,542 7 9	6 8	13,400
,, ,, ,, 4, 1882—52 ,, ...	205,728 16 3	2,927 11 2	3·4	4,895 11 9	5·7	14,890
,, ,, ,, 3, 1883 ,, ,, ...	255,160 2 2	3,488 17 9	3·2	6,093 19 3	5·7	20,045
,, ,, ,, 1, 1884 ,, ,, ...	281,509 2 4	3,992 8 2	3·4	6,935 10 4	5·9	16,250
,, ,, October 31, 1885 ,, ,, ...	363,664 7 11	5,031 1 8	3·3	10,572 0 8	6·9	29,750
,, ,, December 25, 1886—60 ,, ...	496,240 13 8	7,160 19 5	3·4	12,452 11 4	6·0	24,000
,, ,, ,, 31, 1887—53 ,, ...	496,673 11 8	7,256 5 4	3·5	13,217 13 3	6·3	42,420
,, ,, ,, 29, 1888—52 ,, ...	536,600 10 6	7,971 7 4	3·5	14,112 13 9	6·3	31,080
,, ,, ,, 28, 1889—52 ,, ...	584,617 12 1	8,381 3 1	3·4	13,525 12 9	5·5	142,600
Quarter ending March 29, 1890—13 ,, ...	133,867 19 5	2,001 18 8	3·5	3,318 0 3	6·0	32,760
,, ,, June 28, 1890—13 ,, ...	183,219 8 1	2,058 16 9	3·3	3,273 9 8	5 2	32,900
Totals to June 28, 1890.....	4,072,733 2 11	58,093 11 2	3·4	102,240 16 10	6·0	32,900

Quarterly Statement, Grocery Department, Kilmarnock, from Date of keeping a Separate Account.

	Net Sales.	Expenses.	Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Stocks.
	£ s. d.	£ s. d.	d.	£ s. d.	d.	£
Quarter ending August 5, 1882	6,594 0 5	190 15 1	7·0	163 7 8	6·0	535
,, ,, November 4, 1882	8,849 10 3	221 7 8	6·0	137 9 1	3·7	1,550
,, ,, February 3, 1883	9,894 13 1	245 18 11	5·9	362 11 7	8·7	2,320
,, ,, May 5, 1883	10,192 13 4	236 7 10	5·5	472 3 0	11·1	2,120
,, ,, August 4, 1883	7,979 7 10	245 14 8	7·3	238 4 11	7·1	720
,, ,, November 3, 1883	11,625 19 8	225 0 1	4·6	176 13 6	3 6	1,663
,, ,, February 2, 1884	8,446 16 2	217 1 5	6·1	123 10 4	3·5	2,898
,, ,, May 3, 1884	9,492 2 9	197 12 5	4·9	162 2 9	4 0	1,781
,, ,, August 2, 1884	9,145 12 11	208 15 8	5·4	114 15 5	3·0	963
,, ,, November 1, 1884	12,989 5 11	198 7 11	3·7	235 6 3	4·2	2,812
,, ,, January 31, 1885	10,094 9 8	204 18 3	4·8	69 14 9	1·6	2,521
,, ,, May 2, 1885	8,874 3 9	159 14 3	4·3	258 5 9	6·9	1,750
,, ,, August 1, 1885	8,644 2 7	192 11 6	5·3	102 4 1	2·8	1,132
,, ,, October 31, 1885	14,012 17 7	208 14 3	3·5	534 12 2	9·1	2,300
,, ,, January 30, 1886	9,461 10 4	204 13 0	5·2	295 13 5	7·5	2,010
,, ,, May 1, 1886	9,439 14 11	177 13 5	4·5	289 7 4	7·3	1,600
,, ,, July 31, 1886	9,434 7 4	193 15 8	4·9	264 10 0	6·7	760
,, ,, *December 25, 1886	23,129 5 10	309 3 2	3·2	908 16 9	9·4	2,070
,, ,, March 26, 1887	11,129 13 7	170 3 9	3·6	364 3 8	7·8	2,615
,, ,, June 25, 1887	9,928 13 5	189 4 9	4·5	255 7 8	6·1	1,525
,, ,, September 24, 1887	15,469 2 4	221 10 8	3·4	895 18 3	13·6	1,070
,, ,, †December 31, 1887	16,152 2 11	245 9 8	4·2	758 15 6	11·2	2,585
,, ,, March 31, 1888	11,715 9 7	179 9 8	4·0	328 8 3	6·7	2,850
,, ,, June 30, 1888	13,539 14 3	202 10 10	3·6	379 15 5	6·7	2,410
,, ,, September 29, 1888	13,946 14 7	218 14 2	3·8	23 10 11	0·4	2,329
,, ,, December 29, 1888	15,162 13 11	229 9 1	3·6	324 10 8	5·1	3,200
,, ,, March 30 1889	10,597 0 5	178 4 0	4·0	178 19 2	4 0	2,080
,, ,, June 29, 1889	11,538 7 6	216 13 3	4·5	102 6 9	2·1	2,600
,, ,, September 28, 1889	14,378 11 7	224 18 1	3·7	405 12 5	6·8	1,420
,, ,, December 28, 1889	17,926 18 8	233 2 5	3·1	623 11 11	8·3	2,910
,, ,, March 29, 1890	12,361 8 6	194 12 5	3·7	560 3 8	10·8	2,040
,, ,, June 28, 1890	13,618 4 4	275 0 3	4·8	563 8 7	9·9	1,050
Totals to June 28, 1890 ..	375,765 9 11	6,817 8 2	4·3	10,665 1 7	6·7	1,050

* Twenty-one weeks. † Fourteen weeks.

QUARTERLY STATEMENT,

FROM DATE OF KEEPING

Quarter Ending	Net Sales.	Expenses.
	£ s. d.	£ s. d.
August 5, 1882	6,328 4 0	237 2 11
November 4, 1882	7,180 12 3	207 17 9
February 3, 1883	8,513 10 1	217 6 4
May 5, 1883	8,583 16 3	226 13 4
August 4, 1883	9,050 6 4	245 1 3
November 3, 1883	8,533 5 8	218 11 2
February 2, 1884	9,278 1 10	235 12 9
May 3, 1884	10,943 14 6	252 16 9
August 2, 1884	12,648 2 11	262 11 10
November 1, 1884	13,776 3 6	275 12 6
January 31, 1885	12 080 7 2	291 8 8
May 2, 1885	13,424 7 0	242 12 6
August 1, 1885	14,930 3 3	251 12 1
October 31, 1885	15,685 3 4	271 7 11
January 30, 1886	12,248 16 9	248 12 8
May 1, 1886	13,616 12 9	283 8 7
July 31, 1886	14,912 1 10	265 7 11
*December 25, 1886	22,975 17 8	397 17 9
March 26, 1887	13,916 4 6	244 6 5
June 25, 1887	13,810 2 11	241 9 2
September 24, 1887	15,064 15 6	265 8 7
†December 31, 1887	16,231 4 0	281 14 4
March 31, 1888	12,205 12 7	246 11 4
June 30, 1888	14,865 19 7	262 6 11
September 29, 1888	14,857 13 3	281 9 7
December 29, 1888	15,323 1 0	284 8 1
March 30, 1889	16,415 11 3	256 13 3
June 29, 1889	20,090 11 2	286 1 0
September 28, 1889	19,022 12 6	295 18 4
December 28, 1889	17,987 11 8	284 1 6
March 29, 1890	15,713 6 7	274 19 11
June 28, 1890	16,324 16 0	288 16 9
Totals	436,538 9 7	8,425 19 10

* Twenty-one weeks. † Fourteen weeks.

GROCERY DEPARTMENT, DUNDEE.

A Separate Account.

Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Net Loss.	Rate per £ of Sales.	Stocks.
d.	£ s. d.	d.	£ s. d.	d.	£
8·8	....	..	126 19 9	4·8	1,205
7·0	....	..	98 12 7	3·3	1,474
6·1	57 12 4	1·8	....	..	1,040
6·3	96 1 7	2·7	....	..	1,080
6·5	5 15 3	0·1	....	..	1,923
6·1	71 2 5	2·0	....	..	2,455
6·1	88 14 11	2·2	....	..	2,250
5·6	181 7 10	4·0	....	..	1,975
5·0	260 9 7	4·9	....	..	2,950
4·8	73 16 8	1·3	....	..	2,690
5·8	111 1 3	2·2	....	..	1,080
4·3	189 3 2	3·4	....	..	1,950
4·0	359 16 4	5·8	....	..	2,940
4·2	348 15 2	5·3	....	..	2,890
4·8	238 13 5	4·6	....	..	1,300
5·0	86 11 2	1·5	....	..	2,670
4·2	205 17 7	3·3	....	..	3,250
4·1	348 8 3	3·7	....	..	2,600
4·2	163 5 0	2·8	....	..	1,385
4·2	210 10 3	3·6	....	..	3,050
4·2	212 6 11	3·4	....	..	3,020
4·2	279 17 11	4·2	....	..	3,210
4·8	286 9 8	5·6	....	..	2,770
4·2	154 19 5	2·5	....	..	3,740
4·5	253 8 2	4·1	....	..	5,370
4·4	321 3 11	5·0	....	..	2,710
3·7	245 2 6	3·5	....	..	3,230
3·4	618 7 4	7·3	....	..	5,940
3·7	60 4 11	0·7	....	..	4,590
3·7	206 9 7	2·7	....	..	4,150
4·2	244 7 7	3·7	....	..	3,420
4·2	244 8 2	3·6	....	..	3,590
4·6	6,234 8 3	..	225 12 4	..	3,590
	225 12 4	..			
	6,008 15 11	3·3			

QUARTERLY STATEMENT,

From Date of keeping

Quarter Ending	Net Sales.		
	Boots.	Furniture.	Drapery.
	£ s. d.	£ s. d.	£ s. d.
August 5, 1882.....	8,351 15 0	2,693 6 11	21,144 6 11
November 4, 1882.....	9,267 11 10	2,057 1 11	25,587 12 9
February 3, 1883.....	7,520 4 4	2,280 17 3	22,301 14 3
May 5, 1883.....	8,159 0 7	1,904 14 4	25,682 6 9
August 4, 1883.....	9,368 12 4	3,045 1 9	28,937 10 11
November 3, 1883.....	9,658 4 3	2,518 11 10	30,562 12 8
February 2, 1884.....	8,944 16 1	2,994 17 9	26,445 3 8
May 3, 1884.....	9,782 13 2	2,307 11 1	30,463 14 9
August 2, 1884.....	10,981 0 10	4,595 4 10	28,337 2 6
November 1, 1884.....	10,884 13 3	2,887 1 9	34,034 16 0
January 31, 1885.....	....	....	30,267 3 3
May 2, 1885.....	....	....	37,153 15 9
August 1, 1885.....	....	....	33,578 12 7
October 31, 1885.....	....	....	39,994 14 4
January 30, 1886.....	....	....	33,029 17 3
May 1, 1886.....	....	....	44,570 7 11
July 31, 1886.....	....	....	42,129 5 5
*December 25, 1886.....	....	....	75,835 10 10
March 26, 1887.....	....	....	40,647 13 5
June 25, 1887.....	....	....	50,432 4 9
September 24, 1887.....	....	....	47,697 15 3
†December 31, 1887.....	....	....	55,420 13 10
March 31, 1888.....	....	....	48,630 9 0
June 30, 1888.....	....	....	56,216 13 4
September 29, 1888.....	....	....	57,138 9 11
December 29, 1888.....	....	....	56,928 16 6
March 30, 1889.....	....	....	55,006 12 0
June 29, 1889.....	....	....	64,163 10 4
September 28, 1889.....	....	....	67,747 18 7
December 28, 1889.....	....	....	74,256 1 8
March 29, 1890.....	....	....	71,632 4 4
June 28, 1890.....	....	....	81,166 2 4
Totals.....	92,918 11 8	27,284 9 5	1,432,142 4 9

* Twenty-one weeks. † Fourteen weeks.

DRAPERY DEPARTMENT,

A SEPARATE ACCOUNT.

NET SALES. Total.	Expenses.	Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Stocks.
£ s. d.	£ s. d.	£	£ s. d.	£	£
32,189 8 10	1,123 9 9	8·4	1,171 8 2	8·7	28,560
36,912 6 6	1,356 1 2	8·8	1,308 6 6	8·7	34,030
32,102 15 10	1,409 11 3	10·5	967 14 0	7·2	33,260
35,746 1 8	1,438 12 11	9·6	1,090 8 2	7·3	31,231
36,351 5 0	1,447 8 1	9·5	1,284 12 4	8·5	31,253
42,739 8 9	1,534 9 3	8·6	1,807 4 8	10·1	32,281
38,384 17 6	1,588 18 8	9·9	1,605 11 5	10·0	33,192
42,553 19 0	1,666 5 8	9·4	1,591 16 7	9·0	36,065
43,913 8 2	1,731 9 9	9·4	1,717 4 10	9·3	35,784
47,806 11 0	1,827 15 5	9·1	1,899 14 5	9·5	39,661
30,267 3 3	1,290 0 9	10·2	1,319 11 1	10·1	31,084
37,153 15 9	1,414 15 11	9·1	1,492 17 7	9·6	32,340
33,578 12 7	1,438 19 0	10·2	1,211 0 11	8·7	31,020
39,994 14 4	1,547 6 10	9·2	1,847 0 5	11·0	35,990
33,029 17 3	1,554 9 2	11·2	1,216 7 10	9·0	33,150
44,570 17 11	1,641 9 6	8·8	1,709 19 3	9·2	36,340
42,129 5 5	1,705 8 3	9·7	1,801 11 5	10·3	40,100
75,835 10 10	3,362 6 4	10·6	3,983 5 11	12·6	45,740
40,647 13 5	2,028 12 8	11·9	1,248 2 8	7·3	47,670
50,432 4 9	2,081 15 1	9·9	2,185 17 1	10·4	42,170
47,697 15 3	2,065 14 10	10·3	2,234 6 10	11·2	45,870
55,420 13 10	2,294 1 9	10·0	2,487 10 2	10·7	41,400
48,630 9 0	2,176 17 7	10·7	1,661 14 11	8·2	48,645
56,216 13 4	2,257 18 4	9·6	2,175 16 9	9·2	43,240
57,138 9 11	2,324 4 0	9·7	2,186 15 11	9·2	50,050
56,928 16 6	2,486 11 6	10·4	2,057 16 3	8·6	47,990
55,006 13 0	2,493 3 11	10·8	2,294 3 2	10·0	54,600
64,163 10 4	2,645 6 9	9·9	3,167 18 6	11·8	50,900
67,747 18 7	2,776 1 7	9·8	2,707 18 0	9·5	64,600
74,256 1 8	2,887 18 9	9·3	3,230 4 0	10·4	58,800
71,632 4 4	2,997 12 3	10·0	3,297 1 4	11·0	72,080
81,166 2 4	3,306 17 9	9·7	3,416 9 5	10·1	62,200
1,552,345 5 10	63,901 14 5	9·8	63,377 10 6	9·5	62,200

PRODUCTIVE DEPARTMENT.

Quarterly Statement showing

Quarter Ending	Transferred.	Production.	Expenses on Production.
	£ s. d.	£ s. d.	£ s. d.
November 4, 1882..	427 10 10	427 10 10	319 12 11
February 3, 1883..	542 7 3	542 7 3	386 2 6
May 5, 1883..	541 8 10	541 8 10	404 5 6
August 4, 1883..	647 18 2	647 18 2	484 17 7
November 3, 1883..	537 13 10	537 13 10	357 13 9
February 2, 1884..	464 3 0	464 3 0	304 3 7
May 3, 1884..	587 6 0	587 6 0	435 16 7
August 2, 1884..	631 8 0	631 8 0	463 8 0
November 1, 1884..	838 10 10	838 10 10	450 5 9
January 31, 1885..	661 1 6	661 1 6	426 4 10
May 2, 1885..	838 8 3	838 8 3	491 7 3
August 1, 1885..	947 8 5	947 8 5	569 11 6
October 31, 1885..	1,164 13 7	1,164 13 7	692 2 0
January 30, 1886..	1,128 2 2	1,128 2 2	742 7 1
May 1, 1886..	1,474 0 7	1,474 0 7	814 6 1
July 31, 1886..	1,511 2 1	1,511 2 1	869 4 8
*December 25, 1886..	2,139 13 9	2,139 13 9	1,420 12 6
March 26, 1887..	1,587 2 3	1,587 2 3	926 18 10
June 25, 1887..	2,265 11 8	2,265 11 8	1,351 1 8
September 24, 1887..	1,927 17 10	1,927 17 10	1,282 9 8
December 31, 1887..	2,298 14 10	1,965 1 1	1,286 17 8
March 31, 1888..	1,529 11 9	1,692 5 1	1,077 12 1
June 30, 1888..	2,212 9 9	2,227 2 1	1,335 15 10
September 29, 1888..	2,270 9 2	2,203 14 3	1,404 15 8
December 29, 1888..	2,319 5 1	2,516 5 1	1,492 14 4
March 30, 1889..	1,892 6 4	1,784 6 5	1,210 6 10
June 29, 1889..	2,464 17 4	2,449 6 3	1,450 15 11
September 28, 1889..	1,865 7 0	1,932 14 0	1,258 6 5
December 28, 1889..	3,027 12 11	3,233 4 0	1,660 14 5
March 29, 1890..	2,624 6 1	6,446 19 3	1,703 14 3
June 28, 1890..	4,078 11 4		1,957 3 8
Totals	47,447 0 5	47,314 6 4	29,031 9 4

* Twenty-one weeks.

TAILORING FACTORY.

Expenses and Net Profit.

Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.		£ s. d.	
74·71	1 11 2	0·23	....	....
71·21	34 9 10	6·27	....	....
74·67	....	....	15 9 5	2·77
74·80	....	....	7 2 10	1·08
66·48	....	....	0 8 2	....
65·51	13 14 9	2·80	....	....
74·11	....	....	1 16 4	0·2
73·37	15 1 0	2·37	....	....
53·70	18 9 9	2·14	....	....
64·45	....	....	38 15 8	5·74
58·59	54 17 5	6·44	....	....
60·08	58 3 2	6·12	....	....
59·45	5 19 5	0·51	....	....
65·78	....	....	4 1 11	0·35
55·22	38 14 11	2·57	....	....
57·51	15 13 10	0·99	....	....
66·38	....	....	36 17 2	1·68
58·34	21 3 11	1·32	....	....
59·64	111 17 4	4·90	....	....
66·52	....	....	139 11 0	7·21
65·44	....	....	68 18 3	3·51
63·65	42 14 2	2·48	....	....
59·94	109 15 2	8·16	....	....
63·73	167 6 10	7·58	....	....
59·30	189 7 3	7·51	....	....
67·76	84 0 11	4·70	....	....
59·12	241 16 2	9·84	....	....
65·11	142 3 3	7·35	....	....
51·34	467 1 9	14·44	....	....
56·77	646 2 7	10·02	....	....
61·35	2,480 4 7	....	313 0 9	0·76
	313 0 9	....		
	2,167 3 10	4·57		

PRODUCTIVE DEPARTMENT.

Quarterly Statement Showing

Quarter Ending	Transferred.	Production.	Expenses on Production.
	£ s. d.	£ s. d.	£ s. d.
November 4, 1882..	201 11 0	201 11 0	159 13 10
February 3, 1883..	207 9 10	207 9 10	176 16 1
May 5, 1883..	208 8 0	208 8 0	171 5 8
August 4, 1883..	168 1 11	168 1 11	147 14 11
November 3, 1883..	175 13 4	175 13 4	159 3 1
February 2, 1884..	225 16 1	225 16 1	188 4 5
May 3, 1884..	234 2 3	234 2 3	193 8 0
August 2, 1884..	178 18 8	178 18 8	161 13 5
November 1, 1884..	231 2 7	231 2 7	200 15 11
January 31, 1885..	294 9 10	294 9 10	244 0 8
May 2, 1885..	474 7 1	474 7 1	256 1 5
August 1, 1885..	303 19 5	303 19 5	182 7 11
October 31, 1885..	334 11 4	334 11 4	202 10 8
January 30, 1886..	355 4 8	355 4 8	216 10 6
May 1, 1886..	409 10 4	409 10 4	245 3 7
July 31, 1886..	422 4 4	422 4 4	252 13 2
December 25, 1886..	705 17 7	705 17 7	418 5 3
March 26, 1887..	391 17 6	391 17 6	248 3 1
June 25, 1887..	400 7 4	400 7 4	235 18 8
September 24, 1887..	343 6 10	343 6 10	228 16 4
December 31, 1887..	496 4 8	514 14 4	320 12 8
March 31, 1888..	517 4 1	510 6 9	314 13 9
June 30, 1888..	557 17 2	564 7 9	377 0 4
September 29, 1888..	605 11 11	606 7 8	410 5 2
December 29, 1888..	691 7 4	699 12 10	475 8 0
March 30, 1889..	765 6 11	753 8 2	443 10 7
June 29, 1889..	677 5 1	677 7 0	429 14 6
September 28, 1889..	650 4 0	643 7 8	406 11 7
December 28, 1889..	705 1 8	730 5 7	448 10 7
March 29, 1890..	674 5 11	1,357 11 9	409 13 6
June 28, 1890..	695 7 3		431 7 9
Totals	13,302 15 11	13,324 9 5	8,756 15 0

SHIRT FACTORY.

Expenses and Net Profit.

Rate per Cent.	Net Profit on Production.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.		£ s. d.	
79·10	21 9 4	10·44	....	....
85·02	8 5 6	3·86	....	....
82·21	5 7 8	2·40	....	....
87·5	7 16 9	4 76	....	....
90·85	0 9 3	..	....	....
83·55	9 18 8	4·44	....	....
82·47	7 16 10	2 99	....	....
90·44	..	..	8 16 10	4·91
86·57	..	..	7 9 9	3·22
83·02	13 1 3	4·42	....	....
54·00	37 16 7	7·80	....	....
60·06	23 18 5	7·78	....	....
60·47	14 9 3	4·19	....	....
60·84	10 18 9	3·09	....	....
59·9	14 10 1	3·42	....	....
59·71	26 7 6	6·16	....	....
59 29	20 7 0	2·83	....	....
63·26	8 10 8	2·04	....	....
59·00	8 8 3	2·00	....	....
66·76	3 11 6	1·02	....	....
62·25	19 15 0	3·83	....	....
61·57	9 10 1	1·76	....	....
66·84	1 11 10	..	....	....
67·65	....	..	12 9 7	1·98
67·85	....	..	11 17 10	1·71
58·80	69 7 11	9·16	....	....
63·36	30 7 9	4·43	....	....
63·14	58 19 9	9·17	....	....
61·37	51 13 11	7·12	....	....
61·09	122 10 9	8·99	....	....
65·71	607 0 3	..	40 14 0	0·33
	40 14 0	..		
	566 6 3	4·24		

BOOT AND SHOE FACTORY.

Quarterly Statement showing Expenses and Net Profit.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent on Production	Net Profit on Production.	Rate per Cent on Production	Net Loss.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£ s. d.	
May 2, 1885	3,298 16 7	3,298 16 7	1,183 10 5	35·87	..	..	47 9 10	1·42
August 1, 1885	5,222 6 4	5,222 6 4	1,642 8 2	31·44	65 14 11	1·24	..	..
October 31, 1885	5,283 9 3	5,283 9 3	1,686 10 3	31·91	175 4 4	3·31	..	..
January 30, 1886	5,456 19 0	5,456 19 0	1,723 7 0	31·57	81 8 8	1·48	..	..
May 1, 1886	6,535 2 5	6,535 2 5	2,010 0 5	30·75	165 13 2	2·52	..	..
July 31, 1886	6,217 1 1	6,217 1 1	2,101 11 6	33·77	215 3 5	3·45	..	..
*December 25, 1886	15,607 4 2	15,607 4 2	4,290 7 0	27·49	651 19 9	4·17	..	..
March 26, 1887	6,105 16 5	6,105 16 5	2,161 8 4	35·39	60 12 7	0·98	..	..
June 25, 1887	8,757 13 0	8,757 13 0	2,796 10 5	31·92	63 15 4	0·72	..	..
September 24, 1887	9,100 13 10	9,100 13 10	2,882 11 1	31·66	393 16 3	4·31	..	..
December 31, 1887	9,892 17 1	9,870 13 7	3,198 1 6	32·40	619 19 8	6 28	..	..
March 31, 1888	7,857 5 5	8,162 3 4	2,759 2 8	33·80	405 4 1	4·96	..	..
June 30, 1888	6,564 3 5	7,293 17 3	2,747 5 0	37·66	282 10 0	3·86	..	..
September 29, 1888	11,007 15 8	11,335 14 3	3,813 4 4	33·64	450 13 11	3·97	..	..
December 29, 1888	12,744 8 7	12 575 18 10	4,243 14 6	33·74	621 9 0	4·93	..	..
March 31, 1889	9,242 10 9	10,446 4 1	3,691 18 3	35·32	430 0 7	4·11	..	..
June 29, 1889	13,064 4 11	14,383 1 10	4,649 4 7	32·32	611 3 0	4·24	..	..
September 28, 1889	14,117 19 7	14,256 5 10	5,174 0 5	36·29	600 7 3	4·28	..	..
December 28, 1889	13,205 8 3	15,000 9 10	5,407 3 1	36·04	909 12 1	6·06	..	..
March 29, 1890	10,964 14 3	28,621 13 5	4,854 0 3	36·56	1,867 10 10	6·52	..	..
June 28, 1890	16,035 18 0		5,611 6 2					
Totals	196,282 8 0	203,531 4 4	68,627 5 4	33 71	8,671 18 10	..	47 9 10	..
					47 9 10	..		
					8,624 9 0	4·20		

* Twenty-one weeks.

QUARTERLY STATEMENT, BOOT AND SHOE DEPARTMENT.

From Date of keeping a Separate Account.

	Net Sales.	Expenses.	Rate of Pence per £ of Sales.	Net Profit.	Rate of Pence per £ of Sales.	Stocks.
	£ s. d.	£ s. d.		£ s. d.		£
Quarter ending January 31, 1885..	10,188 11 5	290 18 9	6·8	596 3 8	14·0	5,990
,, ,, May 2, 1885..	12,549 19 5	353 2 4	6·7	608 18 9	11·6	5,530
,, ,, August 1, 1885..	16,185 10 11	429 16 10	6·4	777 3 8	11·5	9,400
,, ,, October 31, 1885..	16,542 18 4	529 0 6	7 6	499 12 2	7·2	11,520
,, ,, January 30, 1886..	14,120 7 6	549 9 11	9·3	460 5 6	7 8	11,200
,, ,, May 1, 1886..	16,190 5 3	556 12 0	8·3	560 19 3	8·3	11,130
,, ,, July 31, 1886..	16,467 16 11	538 0 6	7 9	585 11 5	8·5	11,490
,, ,, *December 25, 1886..	28,856 18 8	980 7 10	8·2	942 0 7	7·8	15,500
,, ,, March 25, 1887..	14,242 19 10	602 18 11	10·1	256 19 6	4·3	14,150
,, ,, June 25, 1887..	18,416 14 3	602 10 3	7·8	616 6 6	8·0	13,185
,, ,, September 24, 1887..	17,259 16 10	598 15 6	8·2	310 11 7	4·3	14,730
,, ,, †December 31, 1887..	20,704 14 9	736 4 10	8·3	605 2 9	7 0	15,490
,, ,, March 31, 1888..	16,373 12 5	669 10 7	10·1	153 9 6	2·3	15,630
,, ,, June 30, 1888..	19,721 3 3	652 6 7	8·0	389 16 3	4·7	11,710
,, ,, September 29, 1888..	19,657 10 9	705 7 2	8·6	464 2 1	5·6	13,300
,, ,, December 29, 1888..	22,183 2 7	781 13 8	8·4	424 2 5	4·7	15,390
,, ,, March 30, 1889..	18,000 17 5	751 17 11	10·0	240 2 8	3·2	14,680
,, ,, June 29, 1889..	24,306 1 9	873 14 1	8·6	589 8 9	5·8	15,070
,, ,, September 28, 1889..	22,671 17 3	872 5 2	9·2	441 5 7	4·7	18,000
,, ,, December 28, 1889..	26,200 2 6	893 19 7	8·2	720 13 3	6·6	16,950
,, ,, March 29, 1890..	22,593 13 8	900 17 4	9·5	444 10 10	4·7	16,420
,, ,, June 28, 1890..	28,847 19 5	1,022 19 8	8·5	885 16 10	7·4	16,560
Totals	422,282 15 1	14,892 9 11	8·4	11,573 3 6	6·5	16,560

* Twenty-one weeks. † Fourteen weeks.

QUARTERLY STATEMENT, FURNITURE AND FURNISHING DEPARTMENT.

From Date of keeping a Separate Account.

	Net Sales.	Expenses.	Rate per £ of Sales.	Net Profit.	Rate per £ of Sales.	Stocks.
	£ s. d.	£ s. d.	d.	£ s. d.	d.	£
Quarter ending January 31, 1885..	3,022 18 2	210 11 11	16·7	81 13 3	6·4	3,500
,, ,, May 2, 1885..	2,636 9 6	262 5 10	23 8	†4 17 11	0·4	4,410
,, ,, August 1, 1885..	7,200 12 9	392 6 7	13 0	221 4 9	7 4	4,620
,, ,, October 31, 1885..	5,599 11 1	420 1 5	18·0	133 3 10	5·6	5,600
,, ,, January 20, 1886..	6,744 8 11	445 7 4	15·8	145 4 10	5·2	6,180
,, ,, May 1, 1886..	7,026 7 0	470 18 2	16·0	195 9 8	6·4	7,020
,, ,, July 31, 1886..	9,621 1 11	500 9 6	12·4	410 10 0	10·2	7,650
,, ,, *December 25, 1886..	13,157 12 1	914 4 7	16·6	292 9 7	5 4	7,400
,, ,, March 25, 1887..	7,315 11 8	577 14 1	18·9	160 16 8	5·2	8,750
,, ,, June 25, 1887..	11,023 17 4	590 17 11	12·8	641 14 4	13·9	9,290
,, ,, September 24, 1887..	8,567 19 0	618 12 4	17·3	323 12 11	9·0	9,570
,, ,, ‡December 31, 1887..	11,956 12 7	723 6 11	14·5	677 17 2	13 6	9,150
,, ,, March 31, 1888..	8,295 17 1	667 6 7	19·3	311 7 10	9 0	10,370
,, ,, June 30, 1888..	12,865 9 6	738 3 6	13·9	735 16 7	13·9	10,540
,, ,, September 29, 1888..	9,876 13 4	780 1 6	18·9	245 16 0	5·9	10,000
,, ,, December 29, 1888..	12,582 11 8	860 10 4	16·4	412 16 5	7·8	10,820
,, ,, March 30, 1889..	9,970 0 8	814 4 1	19·6	285 2 3	6·8	11,990
,, ,, June 29, 1889..	15,812 15 7	918 7 0	13·9	762 19 10	7·5	11,170
,, ,, September 28, 1889..	12,451 19 0	905 16 2	17·4	625 14 2	12·0	10,380
,, ,, December 28, 1889..	16,871 0 8	930 18 5	13·2	916 2 10	13·0	10,450
,, ,, March 29, 1890..	14,418 6 7	926 4 4	15·4	567 11 8	9·4	11,410
,, ,, June 28, 1890..	21,501 17 11	1,045 3 0	11·6	1,339 5 4	14·9	11,150
Totals.....	228,529 14 0	14,713 11 6	15·4	9,481 12 0	9·9	11,150

CABINET WORKSHOP.

Quarterly Statement.

Quarter Ending	Transferred.	Production.	Expenses.	Rate per Cent.	Net Profit.	Rate per Cent.	Net Loss.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.		£ s. d.	
January 31, 1885	144 3 9	144 3 9	102 19 9	71·52	..	..	10 6 0	6·94
May 2, 1885	338 8 1	338 8 1	179 12 0	52·95	4 1 11	1·18	..	..
August 1, 1885	388 0 5	388 0 5	228 3 10	58·76	16 1 8	4·12	..	..
October 31, 1885	417 17 7	417 17 7	214 13 5	51·31	9 19 8	2·39	..	..
January 30, 1886	361 0 0	361 0 0	219 0 5	60·66	15 14 5	4·30	..	..
May 1, 1886	371 8 1	371 8 1	209 0 6	56·06	0 6 11	..	..	..
July 31, 1886	504 6 6	504 6 6	276 16 0	54·76	14 7 6	2·77	..	..
*December 25, 1886	994 19 4	994 19 4	499 14 10	50·15	69 3 5	6·93	..	..
March 26, 1887	620 2 1	620 2 1	312 11 11	50·32	18 1 0	2·90	..	..
June 25, 1887	582 12 0	582 12 0	326 19 9	56·18	6 18 3	1 20	..	..
September 24, 1887	656 13 0	656 13 0	329 10 7	50·15	15 11 6	2·28	..	..
December 31, 1887	629 9 6	697 19 11	410 6 10	58·73	27 0 3	3·86	..	..
March 31, 1888	457 14 8	651 11 8	330 15 11	50·69	24 9 8	3·68	..	..
June 30, 1888	960 9 2	801 0 9	384 2 8	47·94	12 7 7	1·49	..	..
September 29, 1888	1,194 4 6	1,269 8 0	680 17 9	53·58	..	..	115 11 2	7·38
December 29, 1888	1,477 10 8	1,601 12 11	914 6 0	57·08	58 1 10	3·62	..	..
March 30, 1889	1,445 7 0	1,612 15 3	885 4 8	54·90	30 0 1	1·24	..	..
June 29, 1889	1,830 0 8	1,797 2 9	950 10 7	52·86	19 8 6	1·05	..	..
September 28, 1889	1,784 1 6	1,707 6 11	927 14 11	54·30	20 16 0	1·23	..	..
December 28, 1889	2,594 18 11	2,654 14 7	1,258 14 10	47·40	113 13 11	4·25	..	..
March 29, 1890	2,626 4 5	6,116 7 10	1,520 7 11	53·30	478 5 4	7·81	..	..
June 28, 1890	3,511 12 4		1,740 10 6					
Totals	23,891 4 2	24,289 11 5	12,902 15 7	53·11	955 2 5	..	125 17 2	..
					125 17 2	..		
					829 5 3	3·41		

*Twenty-one weeks.

PRINTING WORKSHOP.

QUARTERLY STATEMENT.

Quarter Ending	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
December 31, 1887	649 14 2	653 15 5	347 14 7	53·13	41 19 10	6·43
March 31, 1888	698 16 9	692 5 2	350 5 6	50·57	44 14 0	6·35
June 30, 1888	767 14 9	783 8 7	355 11 1	45·33	72 16 5	9·19
September 29, 1888	759 11 6	760 19 5	369 12 1	48·55	90 6 5	11·84
December 29, 1888	888 14 4	884 19 4	405 8 8	45·81	78 5 7	8·82
March 30, 1889	812 18 0	846 17 10	469 9 4	55·43	43 9 6	5·08
June 29, 1889	957 11 10	995 2 4	530 13 9	53·26	71 16 7	7·13
September 28, 1889	991 9 2	1,027 3 8	510 0 0	49·65	77 14 6	7·59
December 28, 1889	1,093 8 5	1,116 8 1	616 4 6	55·19	68 19 11	6·18
March 29, 1890	1,307 11 4	3,170 2 11	689 7 1	48·10	291 9 3	9 17
June 28, 1890	1,785 12 1		837 4 9			
Totals	10,713 2 4	10,931 2 9	5,481 11 4	50·14	881 12 0	8·05

PRODUCTIVE DEPARTMENTS—PRESERVE WORKS.

Quarterly Statement.

	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
*June 28, 1890	375 10 6	798 8 7	93 3 9	11·65	†15 5 1	1·89

* Fourteen Days. † Loss.

BRUSH FACTORY.

Quarterly Statement.

	Transferred.	Production.	Expenses on Production.	Rate per Cent.	Net Profit on Production.	Rate per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	
March 29, 1890	483 10 9	1,510 1 0	238 15 2	39·66	144 15 1	9·53
June 28, 1890	874 8 11		360 8 6			
Totals	1,357 19 8	1,510 1 0	599 3 8	39·66	144 15 1	9·53

Bonus on Labour.

Bonus on wages to employés has been paid from quarter ending November 19th, 1870. Till November, 1884, the rate paid on wages per £ was double the rate per £ of dividend paid on members' purchases; but on the latter date the arrangement which is now in operation was passed. This rule is to the effect that employés in the distributive departments receive a similar rate per £ on their wages as is paid per £ on members' purchases, and the workers in the productive departments are paid in accordance with the profits made in those departments in the aggregate in the following manner:—The net profit, after meeting all charges, including interest on capital employed, is divided at so much per £ equally between purchases and wages earned.

The following statement shows amount paid to employés as bonus on labour, from November 19th, 1870, to June 28th, 1890:—

	Amount. £ s. d.	Average Rate per £. s. d.
Quarter ending November 19, 1870	5 11 0	.... 0 8
Year ,, ,, 18, 1871	40 10 0	.... 0 10½
,, ,, ,, 16, 1872	52 7 0	.... 0 9½
,, ,, ,, 15, 1873	90 1 8	.... 0 9½
,, ,, ,, 14, 1874	116 9 0	.... 0 8½
,, ,, ,, 13, 1875	109 15 4	.... 0 8
,, ,, ,, 4, 1876	108 13 4	.... 0 8
,, ,, ,, 3, 1877	121 10 0	.... 0 8
,, ,, ,, 2, 1878	147 17 0	.... 0 8
,, ,, ,, 2, 1879	203 3 0	.... 0 9½
,, ,, October 30, 1880	322 9 3	.... 1 1
,, ,, November 5, 1881	368 3 8	.... 1 0
,, ,, ,, 4, 1882	453 9 1	.... 0 11
,, ,, ,, 3, 1883	542 3 0	.... 0 11½
,, ,, ,, 1, 1884	484 2 6	.... 0 9½
,, ,, October 31, 1885	483 13 1	.... 0 6¾
,, ,, December 25, 1886	873 0 6	.... 0 6½ Productive.

	Distributive Amount. £ s. d.	Rate per £. s. d.	Productive Amount. £ s. d.	Rate per £. s. d.
Year ending Dec. 31, 1887 ..	603 0 2	.. 0 6¾	.. 315 2 1	.. 0 4
,, ,, ,, 29, 1888 ..	683 12 1	.. 0 6½	.. 628 11 7	.. 0 7
,, ,, ,, 28, 1889 ..	833 16 10	.. 0 6½	..1,016 14 10	.. 0 8½
Six months,, June 28, 1890 ..	565 19 8	.. 0 7	.. 885 8 0	.. 1 0

Total amount paid as bonus on labour to 28th June, 1890..£10,055 3 8

Employés.

NUMBER OF EMPLOYÉS, SEPTEMBER 12TH, 1890.

			Collective Totals.
Glasgow Distributive Departments:—			
—	Office	—	68
—	Watchmen	5	
—	Grocery Warehouse	63	
—	Ham Curing	16	
—	Potatoes	4	
			88
—	Drapery Departments	97	
—	Mantle ,,	8	
—	Millinery ,,	4	
			109
—	Furniture Departments	—	42
—	Boot and Shoe ,,	—	24
—	Carting	—	23
—	Dining-rooms—Glasgow and Shieldhall	—	16
—	Sugar Forwarding	—	1
Glasgow Building Departments:—			
—	Masons, Builders, and Bricklayers, &c.	16	
—	Joiners	64	
—	Plumbers, Painters, Plasterers, Slaters, &c.	24	
—	Labourers	24	
			128
Glasgow Productive Departments:—			
—	Printing and Paper Bag Making	66	
—	Cabinet, Upholstery, and Brush Factory	149	
—	Shirt Factory	74	
—	Knitting ,,	30	
—	Tailoring ,,	224	
—	Boot and Shoe Factory and Currying Workshop	437	
—	Preserve Factory	44	
			1024
Total for Glasgow			1523
—	Leith		35
—	Kilmarnock		10
—	Dundee		3
—	Enniskillen		7
			1578

THE ENGLISH CONSTITUTION:

ITS ORIGIN AND GROWTH.

BY HENRY DUNCKLEY, M.A., LL.D.

THE purpose of this paper is to give some account of the political constitution under which we live, and of the various changes by which it has reached its present form. The subject appears to divide itself into two parts, one of them comprising the political arrangements which exist to-day, the other comprising the facts and events in the history of the nation by which those arrangements came to be what they are. In dealing with these two divisions of the subject it will be best to reverse the order in which we have named them, and take the second first, though, as we shall find, they naturally run into each other. We understand things most easily and completely by observing their growth, or by seeing them in the course of manufacture. The finished product may attract us by its beauty or its usefulness, but it tells us nothing of the processes which it has gone through, and we must know something of them before we can fully appreciate the qualities and uses of the finished product itself. This is pre-eminently true of the English Constitution. It is the final result, so far, of principles which have been slowly developing themselves in the course of centuries. We shall understand what it is to-day far better if we go back to its beginnings, and then follow it through its subsequent stages down to the present time. We shall thus be prepared to inspect the completed fabric, to enter into its chambers of imagery, to see in what relation each part stands to all the rest, and to appreciate the characteristics that render the venerable and complicated structure, on which successive generations of architects have left the marks of their handiwork, a fit and safe abode for English freedom.

THE CONSTITUTION UNWRITTEN.

THESE observations pre-suppose a fact which it may, nevertheless, be as well to place before us distinctly at the outset. Ours is not the only Constitution in the world. Every nation in Europe, except

Russia, has a Constitution. So has every country across the Atlantic, the Constitution of the United States being the most remarkable of them all. But our Constitution has the distinction of being the only one that is unwritten. All the others were made at a particular time, either by kings and their advisers or by persons elected for the purpose, and most of them were made in this way not long ago. They may be compared to our Acts of Parliament as regards the manner in which they are drafted. Every detail in the scheme of government is in print, so that if anyone wishes to know what the Constitution says on any given point he has only to take down the book in which the articles of the Constitution are recorded, and there he will find it. This cannot be done with the English Constitution; there is no volume in which it is to be found. It is the offspring, in part, of a body of usages dating from ancient times, interpreted by judges and modified by legislation; in part, of a few important statutes, which, because of their importance, may be regarded as in some sense the fundamental laws of the realm; and in part, also, of certain institutions which no Act of Parliament ever founded. Of them the only account to be given is that at one time or other they began to be, and that they have since been enlarged or abridged, or otherwise modified, as the nation grew in intelligence and political power. Keeping these facts in view, it is easy to understand the sense in which it has been truly said that the English Constitution has not been made, but has grown; not by any means that this growth has been spontaneous, or a mere matter of automatic development. Wise heads and heroic hearts have been in close attendance at every stage of its progress, and but for them it might have grown or degenerated into something very different from the noble heritage which has been bequeathed to us.

OUR ENGLISH ANCESTORS.

THE history of the English Constitution is inseparably bound up with the history of the English race. In following it up the stream of time there is no point at which we can pause till we find ourselves among those earliest ancestors of ours whom the older of us used to be taught at school to call Anglo-Saxons, but whom recent historians, far more learned in this department of research than their predecessors, tell us we may call English. We need make but small account of subsequent infusions of Danish and Norman blood. The Danes were next of kin to the English, and readily fell in with their ways. The Normans were a more formidable importation, but there were not many of them, and they were soon absorbed. The Normans, besides, did not come over till the English had been six hundred years in the land, a comparatively vast period, during which their institutions had time to take root and to undergo some

changes, especially in the higher functions of the State. It is important to bear in mind how large a space this early English period occupies in our national history. It is now 825 years since the Norman Conquest, and our school books used to take us no higher. William the Conqueror figured as the first of our kings of whom it was considered needful to give any particular account. It almost seemed as if the nation began with him, everything that had happened before his time being huddled together into a heap of obscure events and barbarous names which the learner was invited to skip. But the Norman king really occupies no such position as has been assigned to him. It is true he was a foreign ruler, but in that respect he was neither the first nor the last. It is also true that he fixes an important date in our history, but that is his chief distinction. The English people, over whom he succeeded in establishing his rule, had been here six centuries before him—that is, for a length of time equal to three-fourths of the time which has passed since he landed on our shores. Now, it is during these six centuries that the foundations of the English Constitution were laid. There have been many changes in the superstructure, but the groundwork was laid then, and a large part of it has remained substantially undisturbed. Our local institutions are the offspring of those early times. They survived the shock of the Conquest, and finally conquered the descendants of the Conqueror. The sense of personal freedom and the habits of self-government which they fostered generated by degrees political influences of the most powerful kind, strong enough to sway the policy of the Crown, and in the final issue to constitute the will of the people, as it has now become, the supreme authority in the State.

HOW THEY SETTLED HERE.

Let us try, as briefly as we can, to convey some idea of the character of our early English ancestors, and of the institutions which they founded. It may be as well, at the same time, to get rid of the illusion of distance, and to realise how near they are to us. We are all in possession of an easy method of measurement. The living traditions of a family extend, in most cases, through three generations. The older men of to-day tell their children what they have known or heard of their own grandfathers, who were born, perhaps, 130 years ago. This is a group of family memories with which most of us are familiar. Take ten such groups in succession and we are carried back to those times, which seem so far away, when our ancestors were coming over in detachments from the coasts of Holstein, Schleswig, and Jutland to make homes for themselves in the land to which they were to give the name of England. The story of the invasion and the gradual conquest of the country is told

at length by Mr. Green. We can only touch upon the few points which are essential to our purpose. Of course, the English were intruders. They had on their side the right of the strongest—that is, the right of the sword. They dispossessed the previous occupants—the Romanised Britons—as those previous occupants had probably, many centuries earlier, dispossessed others. The English did for the Britons what the Normans, six centuries later, did for them; but they did their work far more effectually, and made themselves masters and owners of the land in a sense which was never reversed. They came over in small but solid and well-organised bodies, each under the guidance of some trusted leader. They did not act in concert. The places they selected along the west and southern coasts of the island were wide apart, so that the settlements they founded grew up in a state of independence, and became so many separate kingdoms. Following the course of the great rivers—the Humber, the Trent, and the Thames—the later comers penetrated into the heart of the country, and established themselves there. The plan of settlement would be pretty much the same in all cases, since it grew out of their previous habits. They were not politicians; they did not care to rule. They wanted farms, on which they and their families could live comfortably. Portions of the land were allotted to as many groups of families, each group settling down in its own clearing. Their habitations, surrounded with a mound and quickset hedge for purposes of defence, became a "tun," or township. In the immediate neighbourhood lay the arable land which they divided among themselves from year to year, and further off were the pastures and woodlands which they used in common. As the population grew, whether by natural increase or by the arrival of fresh immigrants from the old country, these settlements multiplied. When more land was wanted they advanced further into the country, the previous occupants giving way before them, or, if resistance was offered, a set battle, in which all took part, would settle the question for thirty or forty years. In this way the whole of the country which we now call England was gradually annexed and occupied, till the several petty kingdoms, which had grown out of the original settlements, touched each other. On the supposition that there were seven of these kingdoms, historians, in after years, christened them the Heptarchy. But their number was not always the same. They were on anything but good terms with each other; they often fought like mortal foes. Two or three of them in turn achieved a superiority over the rest, till at last the kingdom of Wessex prevailed; and about the beginning of the ninth century, after three hundred years of annexing, quarrelling, and fighting, all were united under the supreme rule of Egbert, who may be regarded as the first king of England.

THEIR SOCIAL CONDITION.

THE society which sprang up under these conditions was not of the extreme simplicity which might be imagined. There were differences of social rank. Besides the king and his kinsmen there were persons who were regarded as of noble descent, and there were offices about the Court which conferred something of the status of nobility. It must also be said that at the other end of the scale there were slaves, either prisoners taken in battle, or remnants of the dispossessed race, or men of English blood, who, being sunk in debt, became the property of their creditors. Gambling was a vice as common then as it is now, and men who had put everything else to hazard and lost it sometimes wagered away themselves and their families. Probably the slaves were not a very numerous class; they were the chattels of their masters, who could do with them pretty much as they pleased. Between these social extremes lay the bulk of the community, most of them cultivating their own land, possession of which was by this time held in severalty, the rest cultivating for hire the land of others. These were all personally free, though the freeholder took the higher rank and counted as the unit of the State. Among the freeholders there were distinctions according to the amount of land they held, but from the nature of the case the divisions were not impassable, and it was open to every freeman to work his way into the highest rank. Of political freedom, in the modern sense of the word, the idea could hardly be said to exist. We know things by comparison, and the state of things which is the opposite of political freedom—a state in which one person tyrannically or by supreme right rules over the rest—did not fall within their experience. Freedom was a part of the common stock of the race, and the only service they had to render was that mutual service which they owed to each other or to the community.

Nothing, probably, can be further from the fact than to suppose that our ancestors of these early times deliberately aimed at forming a political commonwealth of any kind. They were, as we have said, not politicians—they were not guided by abstract ideas—but they were freemen in the first place, and lovers of order in the next; hence they framed such regulations for common government as convenience dictated. Even these were not conscious inventions, suggested and adopted at any particular moment for the first time. They were rather the development and adaptation of still older usages, which had prevailed beyond the reach of memory here and in their fatherland.

THEIR LOCAL INSTITUTIONS.

NEVERTHELESS they devised an admirable system of administration which embraced the whole country, and ascended by regular

gradations from the lowest to the highest functions of the State. The township comes first as the unit of the body politic. The township, which grew in size as the population increased, was the area comprised in the settlement of associated farmsteads, and corresponded not to towns in the modern meaning of the word, but to the parish of to-day, which is the ecclesiastical equivalent of the same thing. The township was self-governed. The people met once a year, as we now meet in vestry, and chose their reeve and beadle and other officers. They made their own by-laws. They framed police arrangements for the capture of evil-doers. They provided for the collection of the dues and revenues payable to the king. They took cognisance of contentions in the shape of law-suits in their initial stages, and put them in the way of being submitted to the higher court of the hundred. They also chose four of their best men to represent the township in this higher court. Akin to the organisation of the township was that of the town or borough. Towns in the modern sense had sprung up round some fortified post, or in the neighbourhood of some great man's dwelling, or on sites favourable to intercourse, as at the junction of navigable streams. In their mode of government there were differences in detail arising from the character of the local jurisdiction, but upon these we need not dwell. Substantially they stood upon the same footing as the township. They appointed their own boroughreeve, a name by which the chief executive authority of Manchester was known within the last fifty years; they made their own by-laws and elected to a variety of subordinate offices, some of which have had their almost exact equivalents in our own time. They also chose four of the most important burgesses to represent the town in the larger assemblies of the hundred and the shire.

Next to the township and the town comes, in order of gradation, the meeting of the hundred. The origin of the name need not concern us. At the time of which we are speaking the hundred had come to be a geographical designation for a portion of the shire, as it is to-day. There are six such hundreds in Lancashire. In some counties they are known by other names. The court of the hundred met once a month. It was composed of all the free-holders within the bounds of the hundred, of the parish priest and the four representative men of each township, and also those of any borough which might be situated within the same area. All the freeholders had a right to attend; but, to guard against the risk of non-attendance and make sure of a quorum, twelve men were chosen to act for the rest. The court was invested with judicial functions. Civil and criminal suits were brought before it for adjudication, and the official adjudicators were these twelve men acting on behalf of the whole hundred. This was local justice, administered not at first

in the king's name, but in the name of the people, and substantially by the people themselves. Other administrative duties were thrown upon the court of the hundred. In after years it became an area of taxation, and it already took charge of any royal revenues accruing within its bounds, accounting for them to the sheriff. This brings us to the highest of the local courts, the court of the shire—the county court, as we are almost tempted to call it, though the name with its modern associations would be misleading. The shire meeting was held twice a year, and was composed of all the freeholders of the shire, this designation including many persons of more importance than the mere freeholder. A great man who bore—if we may venture to modernise the spelling—the title of alderman, was appointed by the king with the consent of the Witenagemot, of which we shall speak presently, to preside at the shire meeting. He presided in a military as well as a civil capacity, and had command of the military forces of the county. Along with him was the sheriff, an officer appointed by the king in his personal capacity to serve as his representative and administrator. Again, as in the meeting of the hundred, to provide for the possible non-attendance of those entitled to be present, twelve of the leading men of the shire were elected to represent the rest. They formed a sort of judicial committee. They were the judges of the court, and were competent to dispose of any matter, civil or criminal, which was brought before them. The sheriff sat with them rather as assessor than as judge, though it fell to him to declare their decision, and he was also charged with its execution.

THE WITENAGEMOT.

So much for the local courts. We have now to describe the constitution and functions of a court which was not local but national—the Witenagemot, or council of the wise, the general assembly of the realm, in whom, together with the king, the supreme authority resided. It met at stated times, probably at Easter and Christmas. It was composed of the chief men of the kingdom, who were assumed to be the wisest, including especially the aldermen of the shires and the archbishops and bishops. A numerous and important section of the assembly consisted of the officers of the king, and of those who were attached to him by ties of personal obligation, such as arose, for example, from grants of public land which were made at the instance of the king, though not without the assent of the Witan, to persons whom he thought fit to favour, perhaps, for the public services they had rendered. This assembly of the wise might, perhaps, without stretching the term too much, be called a Parliament, though this particular name arose much later, from the Norman and not the English tongue. Nevertheless our constant

business is to look through names to the things which the names signify, and we must not overlook resemblances because the names used are different. But it is to be observed that the Witenagemot was not a representative assembly. Those who composed it figured there in an official or personal capacity, and not as having been elected by a body of constituents. Mr. Freeman is of opinion that all the freemen in the realm had, in theory, at least a right to be present at the national assembly. The right, he thinks, belonged to all, but, as few could afford the time and cost incident to a long journey, the exercise of the right gradually came to be confined in practice to the wealthy, and more especially to the official class. This opinion has, at any rate, the merit of explaining what seems anomalous in the composition of the Witenagemot from a political point of view, and brings it into harmony with the meetings of the township, the hundred, and the shire. It is not likely that a rule which we find common to all those assemblies should not also have been applied to the national assembly, except for the physical difficulties which stood in the way, and these are the difficulties which were surmounted at a later time by recourse to the principle of representation.

In the transaction of public business, the king and the Witenagemot were inseparable. The Witan was the king's council. He presided over its deliberations, proposed the questions to be considered, listened to the opinions that were given by the leading men as they spoke in turn, and finally pronounced the decision in his name and theirs. We need not suppose that the proceedings were generally contentious. There were few conflicting interests between the king and his counsellors, or between him and his people. The personal influence which the king wielded would, of course, depend upon the strength or weakness of his character. There were crises when the Witan would find it necessary to let the king know their mind pretty plainly; and there were periods, no doubt, when for years together the king would simply have to do their bidding. But in ordinary times his influence was very great. His personal friends and dependants formed a considerable part of the assembly. The aldermen of the shires were nominated by him, though the assent of the Witan was requisite to their formal appointment; and the church dignitaries would, as a rule, rather act in concert with the king than in opposition to him. But the important point to be observed is that in national affairs the king could do nothing without his Witan. Dr. Stubbs says:—

The laws of Ini we enacted "with the counsel and teaching of the bishops, with all the earldomen and the most distinguished Witan of the nation, and with a large gathering of God's servants." Those of Wihtraed are decreed "by the great men with the suffrages of all as an addition to the lawful customs of the Kentish

people." Alfred issues his code with the counsel and consent of his Witan. At Exeter, the Witan decree with the counsel of the king, and the king with theirs. Edmund before he legislates has deliberated with the counsel of his Witan, both ecclesiastical and secular. Edgar ordains with the counsel of his Witan in praise of God, in honour of himself, and for the behoof of all the people. Ethelred and his Witan issue ordinances at Woodstock; Canute, at Winchester, with the counsel of his Witan.

These extracts from the preambles of laws that were framed a thousand years ago are almost identical with the wording of statutes passed last session, which purport to be enacted by the Queen's Most Excellent Majesty, by and with the consent of the Lords Spiritual and Temporal, and of the Commons in Parliament assembled, and by the authority of the same. A vast interval lies between these periods of legislation, and great changes have taken place; but the resemblances we discover are not based on fanciful analogies, they are a matter of lineal descent. There was an indestructible force in those early English usages, rooted as they were in the feelings and habits of the people. They have survived all the political vicissitudes of our political history, and given form and complexion to the institutions of our own day.

THE KING.

SOMETHING must now be said of the kingly office. The English knew nothing of kings in their ancestral homes, but they all provided themselves with kings when they came over here. The origin of the institution may be easily understood. The German tribes when they went to war were accustomed to choose the most valiant of their chiefs to be their leader. But the authority conferred upon him lasted no longer than the war lasted; when peace returned, he fell back into the ranks. No doubt the traditional practice was followed when the expeditions were fitted out which made their way to our shores. Each would be placed under the control of some distinguished chief, who was himself perhaps the instigator and organiser of the enterprise. But the reasons which led to his appointment did not lose their force when a landing was effected and a settlement established. The new comers were in the midst of enemies, who did not give up their land without a struggle, and for a long time were on the watch for opportunities to recover possession. As the settlers spread themselves through wider and wider tracts of country, and in isolated positions, the need would be felt for some central authority which should be continuous, ever on the alert, ever ready to give the alarm when danger approached, and to lead the "host" against the enemy. Hence the leader could never retire from his post; the considerations which placed him in it kept him in it. He became king by force of circumstances. He would naturally desire to retain the position he had won and

transmit it to his children, while the influence he acquired would give him the means of cementing his family interest. So, as a matter of fact, and at first in a very prosaic way, the headship of the State became hereditary, though as time went on sentiment would gather round the office and new ties would be created.

But an English king was in no sense an absolute monarch. It was not forgotten that he owed his rank originally to popular election, and when a king died the forms of election were gone through in the appointment of his successor. No doubt the process was one of recognition rather than appointment, but the idea of his being chosen by the representatives of the nation was religiously preserved, and some shadow of it still remains. The principle of hereditary succession was not strictly adhered to. The children of the late king might be set aside if they were too young to reign or were otherwise disqualified, and preference given to a brother or some other relative. Nothing in the nature of divine right to the succession was recognised or dreamed of in those days. Before the crown—the symbol of the warrior's helmet—was placed upon the head of the king at his coronation, he had to take a solemn oath to observe the laws and usages of the nation, and to govern well and justly. In course of time, when religious associations began to prevail, the rite of consecration with the anointing oil was superadded. But the king was only the first man in the kingdom. By early English usage every man had a value set upon him according to his rank, and if anyone killed him the sum at which his life was assessed had to be paid by the family of the murderer by way of atonement. The king had a value put upon him like the rest, only it was much higher in amount. To kill him was the same crime that it would be to kill any other man, only, on account of his superior rank, a larger fine had to be paid. There was then nothing of that "divinity" which in after times was said to "hedge a king," and the special crime of treason was unknown. By degrees, however, the relation between the king and the people underwent a change; it became more personal. The king was regarded not merely as the head and representative of the nation, but also as the lord of each member of the nation, to whom they individually owed allegiance. As the kingdom grew in extent the authority of the king became stronger. The aldermen appointed to preside over the administration of a shire or of several shires were generally selected from among his kinsmen, and they would look after his interests as well as their own. But here, also, a change gradually took place. These great offices tended to become hereditary. The influence acquired by fostering local interests and cultivating local friendships told at last upon the central power, and endangered the integrity of the realm. It is not improbable that England would have come to

be parcelled out among a number of feudal princes, as happened in Germany and France, each exercising all but sovereign authority within his own territories, if it had not been for an event which it has been usual to regard as a calamity, but to which we undoubtedly owe some advantages—the Norman Conquest.

WILLIAM THE CONQUEROR.

The battle of Hastings must be ranked among the great battles of the world, one of those that have had the most enduring results, and the transfer of the Crown to William, Duke of Normandy, is a signal epoch in our constitutional history. Nevertheless, the magnitude of the changes introduced by the Conquest may be easily exaggerated. It is a small matter, but still one of some significance, that William did not profess to govern England as a conqueror. He strove, as far as circumstances permitted, to hide the fact of conquest, and to present himself to the people as an English king. He based his claim to the Crown not on his having beaten Harold in battle, but on the strength of a promise of the succession which he declared he had received from Edward the Confessor, the last king of the old English line. He regarded the accession of Harold as a usurpation, as well as the breach of a solemn oath which Harold had made to him in Normandy. It would be idle to test the validity of his pretensions by modern ideas. The important point, so far as it is of any importance, is that he put them in the front rank and based his claim upon them. Certainly he was not the nation's choice, but the same could be said of Sweyn and Canute, the Danish invaders, whom, nevertheless, the nation had acknowledged as its lawful kings. To say the truth, it was a period of national demoralisation. The people were divided among themselves, and the prey of powerful factions. The old royal line was all but extinct. Its only representative was a boy, Edgar Ætheling, whose subsequent career proved that he had no capacity to govern. The intimate connection which had existed for a long time previously between England and Normandy, and the interlacing of family ties between the Courts of Westminster and Rouen, afforded some encouragement and some plausible pretexts for William's ambition. He made the most of his opportunities, but his great desire was to be accepted as the constitutional successor of his kinsman, Edward. He was crowned at Westminster by the Archbishop of York amid the acclamations of the people, and solemnly swore to observe the laws and customs of the country. One of his first acts was to confirm the privileges of the City of London by a charter which is still religiously preserved. He made no violent changes. When armed opposition broke out a few years later he suppressed it with a heavy

hand, but there was an end to the disintegrating forces which had long been at work among the people, and the land had rest under his stern rule.

One of the most important results of the Conquest was a gradual change on a great scale in the persons of the holders of the soil, and a change in the kind of tenure by which it was held. Most of the land of England changed hands, not all at once, but in the course of the king's reign. The English nobility, as those of the upper ranks may perhaps be designated, could not reconcile themselves to the new order of things. There were repeated insurrections, in which the leaders were but feebly supported by the common people, and which were invariably suppressed. The suppression of a revolt was followed by a confiscation of the estates of those who took part in it, and these estates the king conferred upon his barons. The larger estates no doubt included a great number of smaller holdings, whose owners would come into the power of the new lord. Some of them would be evicted in favour of his friends or retainers; others would continue in possession, holding their lands of him. The change chiefly effected the great proprietors, and it is probable that the greater part of the population were left undisturbed; but there was throughout a change in the mode of tenure. When the king bestowed the confiscated estates upon his barons, he did not make them over in absolute ownership. They were given on condition of fidelity and service, and they were nominally estates for life. But in practice they passed to the heirs of the persons to whom they were first given, some acknowledgment in money being paid to the king at each transfer, and thus they became hereditary; but they were all held of the king as his personal gifts. He was the supreme owner of the realm, from whom every title to possession was directly or indirectly derived. The relation in which the chief tenants stood to the king became the pattern of the relation in which the inferior tenants stood to the chief tenants. Hence there was a graduated scale of possessory proprietorship from the lowest to the highest ranks, the king standing at the top as the universal landlord. This is the feudal system as it was imported from the Continent; but there had been large approaches to it in England long before the Conquest, and if William developed its principles to their fullest extent he also surrounded it with checks which led to its early decay.

CHECKS TO FEUDALISM.

One of these checks was the oath of fidelity which he exacted from all who held land, both small and great. It was not enough for him that the inferior tenants swore fidelity to their immediate superiors, and that he had a hold upon them through their lords;

he required them to swear allegiance to himself personally. This was an inversion of the feudal theory at the very beginning. He had no idea of allowing the great barons to slip out of his grasp, and become independent of the Crown, as had already happened in France and Germany. Their men were to be in the first place his men, whose services he could enlist, were it needful, against the barons themselves. Another check was the use he made of the social and political organisation already in existence. He had no wish to destroy it; he was anxious as far as possible to maintain the old laws and usages of the realm, and to govern through and by them. The manorial jurisdiction which the barons exercised over their tenants naturally came into conflict with the English system of administration through the courts of the township, the hundred, and the shire, but by the influence of the king a practical compromise arranged itself. The old system remained intact. The new wine was put into the old bottles, and being elastic they did not burst. Public business of importance was still transacted in the county court, the meeting of the shire. In the compilation of Domesday Book, the officers of the king appeared in the customary assemblies, and sought information at first hand from the sworn men of the district. All over England the king went to the people themselves to ascertain the extent of their holdings, the nature and amount of their property, and the local usages that prevailed. The old military system, which made every freeholder liable to service at the king's summons, was preserved intact. The local organisation was everywhere maintained. It served as the machinery of administration, and by keeping alive the embers of self-government it prepared the way for a national revival.

CHURCH AND STATE.

While in secular matters, William adhered as far as he could to established usages, he pursued a different course in church affairs. Hitherto there had been an almost complete identification of the Church with the State. They had hardly been regarded as separate powers, so closely were they blended in practical work. The bishop of the diocese sat with the alderman and the sheriff in the county court, and the three together would deal with a criminous clerk as freely as with a layman. Spiritual as well as civil causes were heard in the same courts, and dealt with by the same authority. William for the first time established a distinction between them, and assigned them to different jurisdictions. Spiritual courts were set up, in which all spiritual causes were determined. The clergy were no longer to be tried by laymen. Even where criminal conduct was concerned they were answerable only to their bishop, who decided how they were to be dealt with for their soul's health.

Everything connected with wills and marriages was transferred to the spiritual courts, and in this way some of the most important interests of daily life in which every household in the land was concerned fell under episcopal control. To these matters the canon law, or the law of the church, as distinct from the common law of the land, came to be applied, and was recognised for spiritual purposes as part of the law of England. The consistory courts of the bishops as they exist to-day, and notably the most important among them the Arches Court of Canterbury, are memorials of the change brought about by William. Testamentary and matrimonial causes have been taken out of the church courts and assigned to a civil court within our own memory.

THE GREAT COUNCIL.

The outward forms of political procedure remained under William and his successors substantially the same as they had been under the English kings. Three times a year—at Easter, Whitsuntide, and Christmas—the great men of the realm assemble at the place where the king happens to be staying—at Westminster, Winchester, or Gloucester—and take part in the public business which has to be transacted. But the lay members of the assembly are no longer men of the English stock; they are the Norman barons to whom the king has given lands, and the archbishops and bishops who meet with them are of the same race. The name of the assembly is also changed. What was once the Witan is now the Great Council, but its functions remain the same. Nor does it appear that the barons meet the king in the character of feudatories, but rather as the chief men of the kingdom, as their English predecessors had done, and by the same title. These annual assemblies, so far from being a feudal institution, were one of the checks on feudalism, though they also became before long an important check upon the authority of the Crown. From a constitutional point of view, it was a fortunate circumstance that the immediate successors of William did not come to the throne with an undisputed title. The eldest son of the Conqueror was set aside in favour of his brothers, William Rufus and Henry I. At Henry's death, his daughter, Matilda, disputed the right of succession with Stephen, the grandson of the Conqueror by his daughter, Adela, and, though Stephen was allowed to reign, it was on the basis of a compromise which set aside his own son in favour of the son of Matilda, who succeeded as Henry II., and proved to be one of our ablest monarchs. These circumstances threw much power into the hands of the Great Council. There was a real election with every new reign, and the new king was anxious to secure his election by making large promises to his subjects. In making these promises, he had the

common people in view much more than the barons. He knew that he had a nation to deal with, and was anxious to have it on his side. The Conquest was hardly completed before the English revival began.

It resulted from the state of things established by the Conquest that the Norman kings and their barons were not long on friendly terms with each other. The barons were discontented with what they had got, and wished to have more. Following the traditions of France and Normandy, they wanted to make themselves independent of the royal power, and to rule as absolute lords over their own tenants and their own lands. In these aims they were checkmated at every turn by the policy of the Crown, which asserted its claim to the direct allegiance of the whole nation. They also had to pay dearly for their lands by the heavy fines exacted as the price of transfer from father to son, and by the asserted right of the Crown to arrange the marriages of female heirs. The constant aim of the Crown was to diminish the power of the barons, and they could only succeed in this by throwing themselves on the people at large for support. In every contest with the barons the English took the side of the king, who rewarded them with promises which it was easier to make than to keep. The time soon came when, through royal faithlessness and tyranny, the barons and the people had common grievances, and when they joined arms it was the turn of the Crown to give way.

NEW SYSTEM OF JUDICATURE.

Henry II. has already been mentioned as one of our ablest rulers, and an important step in the development of the Constitution, the establishment of a centralised system of administration, may be regarded as the principal work of his reign. With that monarch a new dynasty mounted the throne—the famous Plantagenet dynasty—which kept possession for more than three centuries, when its last representative was overthrown on Bosworth Field. The great aim of Henry was to introduce unity and order into the management of national affairs, to brace the whole realm tightly together, and to provide especially for the impartial administration of justice. The measures he adopted were a further restriction upon baronial power, and they paved the way for a representative assembly which should be entitled to speak and act on behalf of the whole nation. To understand the process we must conceive of the king as possessing much larger authority than was ever wielded by his predecessors of the old English line. It was an authority based upon conquest, and included a right to do everything which was not at variance with the established laws and customs of the realm. The king was a ruler; he governed as well as reigned; and, in the hands of such

a king as Henry II., the power he claimed was exercised beneficently. The character he assumed was that of supreme judge and supreme administrator. It was, of course, impossible for him to transact personally all the business which fell into his hands; he had to act through officers appointed for the purpose. The original model on which the scheme was framed was that of the royal household, but offices of a domestic character were gradually separated from those which had charge of public business. The principal officers of state were a Chief Justice, a Treasurer, and a Chancellor. A Chief Justice supposes other justices of a subordinate rank. Their number was increased as necessity arose. There were eighteen in the reign of Henry. The Chancellor was originally a mere clerk, sitting behind a screen and taking down notes of the business transacted. He rose by degrees to be the king's private adviser, or, to use a phrase which is current in our day, the keeper of the king's conscience. These great officers of state composed the king's court, and they divided between them the fiscal, civil, and criminal business of the realm, such part of it, that is, as was not disposed of in the local courts. The king's court, sitting in a special capacity, became the Court of Exchequer, so called because of a cloth of a chequered pattern which covered the table at which they sat. This court had charge of the royal revenue. The sheriffs of the counties came up every year and paid in the money due to the king, whether accruing from fines in the local courts, or from crown lands situated within their jurisdiction, or from feudal fines payable by the barons, or from the single tax which was then levied on the people at large under the name of Danegeld, a tax which, as its name suggests, was first levied for the purpose of resisting or buying off the Danish invaders. Some of the justices took charge of suits arising between the king and his tenants, the holders of land, and became specialised by their functions into the Court of Common Pleas. The rest presided over criminal business generally. They were the guardians of the king's peace—the peace of the realm—and, sitting together, they formed what is known in our times as the Court of King's Bench. The king was supreme in all these courts. The judges derived their authority from him, and acted in his name. At first they followed the king, and administered justice wherever he happened to be; but before long, in deference to popular complaints, they were permanently established at Westminster. An appeal from their decision lay to the king, who determined them by the advice of his chancellor on more general grounds than were furnished by the common law, and in this arrangement we have the beginnings of the Court of Equity, over which the Lord Chancellor of later times presided. All the courts with whose names every Englishman is familiar received their

settled form in the reign of Henry, and, though constantly growing and expanding, remained essentially the same till they were gathered a few years ago into a Supreme Court of Judicature. The most important aspect of these changes is the connection which was established between the courts at Westminster and the county courts all over the land. Batches of the justices were sent on circuit. They were itinerant judges, riding from county to county, presiding in the ancient court of the county, with the aid of grand and petty juries, men sworn to tell the truth and to try all causes truly. Trivial cases were disposed of by the customary authority of the county court, or as we should say, making allowance for some latitude of phrase, by Quarter Sessions; but the more important matters that arose, whether civil or criminal, were reserved for the king's judges. The sheriff was the chief local officer with whom they had to deal. He met them at the border of the county, provided for their protection, sat with them in court, and was charged with the execution of their decisions. It is easy to see in these arrangements the origin of usages with which we are all familiar.

THE GREAT CHARTER.

THE no-government or the misgovernment from which the nation suffered under the sons of Henry II. brought about a union of all classes in resistance to the royal power. Richard, who first succeeded, turned crusader, leaving his kingdom to take care of itself. On his way home he was taken prisoner by the Duke of Austria, one of his private enemies, and the land was heavily taxed to provide the enormous sum demanded as his ransom. His brother John was a born tyrant, mean, cruel, insatiable in his rapacity, regardless of the rights of his subjects, and recognising no law but his own will. Out of the bitter came forth sweet. The whole nation combined against him. He had a faction of the barons on his side, but the greater part of them, including some of the most powerful, took up arms. The Church and the people were with them, and they succeeded in extorting from the king a solemn recognition of the principles which he had been diligently engaged in violating. At their dictation he signed, at Runnymede, the famous instrument which has ever since been known as Magna Carta, or the Great Charter, and is still regarded as the corner-stone of our English liberties. But the Charter is not to be regarded in the light of a concession from the king. It did not give up to the people, out of the fulness of the royal authority, something which they did not claim to possess before. As regards the Church and the barons, he merely declared his determination to adhere to the arrangements which had been made by mutual consent in previous reigns, and

which might be considered as having the force of law, while, as regards the people at large, the Charter was only a renewal of the acknowledgment of their ancient rights which had been made several times since the Conquest. Almost every king had given a charter to the nation. The Conqueror promised to observe the laws which had been in force under Canute. Henry I. bound himself to respect the immunities of the Church, to exact from the barons only such payments as were just and lawful, and to retain the laws of Edward the Confessor. Stephen, on his accession, undertook that all the good laws of Henry I. and Edward the Confessor should be observed, and that those who broke them should be punished. The Charter extorted from King John was of the same kind, but it went further; it was more comprehensive and more elaborate. The recognition required of him was worked out in detail so as to guard against evasion. In one respect the Charter was a distinct step in advance. The barons had their own demands to make upon the king, but it was set forth in the Charter that the claims they made on their own behalf should be conceded by them to their own tenants. In drawing up the provisions of the Charter, the barons showed themselves superior to the prejudices and interests of their order. They acted as Englishmen, and for the first time threw in their lot with that of the whole nation. The spirit they displayed was a fair augury of the political changes that were approaching.

BEGINNINGS OF REPRESENTATIVE GOVERNMENT.

With the faithlessness which distinguished him, John disavowed the Great Charter as soon as the crisis which had forced it upon him was over. He managed to divide his opponents, to make friends, and to renew the war, till at last it was resolved to depose him, and to invite the son of the King of France to assume the crown. From the consequences of this hazardous step the nation was saved by the death of John. He left a son, who was but nine years of age. The boy had done no wrong. Why, it was said, should he be punished for his father's sake? Accordingly, he was crowned as Henry III., and his long reign of fifty-six years was one of the most fruitful in its constitutional results. Guardians were appointed to govern for him till he became of age, but at sixteen he threw them over and declared his intention to act for himself. The ministers he chose made themselves unpopular by their tyrannical proceedings. Parliament spared the king, but they held his ministers responsible, and at length asserted their right to appoint his ministers themselves. The provocation was very great. The king had put himself at the disposal of foreign favourites, upon whom he lavished all the money he could extract from his subjects,

besides incurring enormous debts. The government was at last taken out of the king's hands. Parliamentary committees were appointed to plan a reform of abuses and take charge of the revenue, while a council of fifteen was selected to advise the king. These plans were too bold to be carried out for any length of time without entire unanimity among the barons, and this could hardly be expected. Factious intrigues gave the king an opportunity of resuming power, and the reforming party flew to arms. After a fierce struggle they prevailed, and the capture of the king at the battle of Lewes gave them once more the ascendancy.

It may be asked, where was the Great Charter all this time? The reply is that the Charter was a piece of parchment, and was not of much use without a force to back it. Whenever the king wanted to obtain a parliamentary grant he promised to confirm the Charter—or the charters, previous charters being included; but as soon as he got the money he forgot his promise. It is said that he made the promise six times over. It was clear that something else was necessary. Institutions would have to be provided which should have sufficient power to enforce respect for legal rights. The baronage was formidable so long as it remained united, but it was always tumbling to pieces. How to strengthen it, how to make Parliament more national, and to array the whole force of the nation behind it, was the great question; and the right way of answering it occurred to a man whose life is a romance, whose motives are still a matter of controversy, who was not even an Englishman by birth, but who had acquired a commanding influence among the party of reform, and deserves a place among our national worthies. By the capture of the king supreme power fell into the hands of Simon de Montfort, Earl of Leicester. At his instance a Parliament was summoned to meet at Westminster on the 20th of January, 1265, but instead of consisting, as heretofore, exclusively of bishops, abbots, and barons, the Lords Spiritual and Temporal in the phraseology of later times, writs were sent to the sheriffs directing them to return two discreet knights for each shire, and to the towns and cities ordering two representatives to be sent from each. This is the first time that citizens and burgesses were summoned to attend Parliament, and for that reason the assembly so convened has enjoyed a lasting fame. It met at the time fixed and sat till the following March, giving effect to the arrangements agreed upon at Lewes, and transacting other business of a general kind. But the fair prospects which seemed to be opening were soon clouded over. There was another sudden change in the course of events. Edward, the eldest son of the king, escaped from the custody in which he had been held since the great battle. War broke out afresh, and on the field of Evesham Simon de Montfort was slain. The fabric he had half reared

collapsed at once. The knights of the shires and the representatives of the towns and cities were not summoned to Parliament again for thirty years. But the next start was to be a final one.

BURGESSES IN PARLIAMENT.

THE young prince, at whose warlike touch the edifice extemporised by Simon de Montfort fell to the ground, was destined to be its restorer, and to establish it on permanent foundations. Edward I. had the qualities of a great king. In the long roll of our sovereigns there is not one who stands higher. His legislative work has earned for him the title of the English Justinian. He was a lover of justice, and his heart was set upon promoting the welfare of his people, but in accordance with the spirit of the age he was also a warrior, and his warlike enterprises, which he believed to be necessary for the safety and honour of the realm, involved him in a large expenditure, and this his ordinary revenues did not suffice to meet. He was forced by circumstances to make large demands upon Parliament. Sometimes they were refused altogether; sometimes he had to be content with half as much as he had asked for. Assured of his own integrity and of the usefulness of his designs, he resented this niggardliness, and occasionally took what he wanted without asking permission. Financial disputes were mixed up with complaints arising from his refusal to confirm the charters which had been granted by his predecessors. Yet he was not arbitrary by nature. He wished to do what was right, and he wanted, if it were possible, to act in harmony with his people. Probably the conclusion was at last forced upon him that Parliament rested upon too narrow a basis, and that he would fare better if he had a readier way to the sympathies of the nation. The experiment of Simon de Montfort was not lost upon him, and he resolved to repeat it, but in a more systematic form and in closer harmony with the constitutional precedents already established.

Accordingly, in 1295, writs were issued for a Parliament of a more comprehensive character than had ever yet assembled at Westminster. Dr. Stubbs says :—

> The form of summons addressed to the prelates is very remarkable, and may almost be regarded as a prophetic inauguration of the representative system. It begins with a quotation from Justinian, which was transmuted by Edward from a mere legal maxim into a great political and constitutional principle: "As the most righteous law, established by the provident circumspection of the sacred princes [of Roman times], exhorts and ordains that that which touches all shall be approved by all, it is very evident that common dangers must be met by measures concerted in common." The whole nation, not merely Gascony, is threatened; the realm has been invaded; the English tongue, if Philip's [the King of France's] power is equal to his malice, will be destroyed from the earth; your interests, like those of your fellow-citizens, are at stake. The writs to the barons and sheriffs are shorter, but in the same key. The assembly constituted

by them is to be a perfect council of estates; the archbishops and bishops are to bring the heads of their chapters, their archdeacons, one proctor for the clergy of each cathedral, and two for the clergy of each diocese. Every sheriff is to cause two knights of each shire, two citizens of each city, and two burghers for each borough to be elected and returned. Seven earls and forty-one barons have special summons. The purpose of the gathering and the time of notice are expressed, as the Great Charter required. The share of each estate in the forthcoming deliberation is marked out; the clergy and the baronage are summoned to treat, ordain, and execute measures of defence; and the representatives of the Commons are to bring full power from their constituencies to execute what shall be ordained by common counsel. This was to be a model assembly, bearing in its constitution evidence of the principle by which the summons was dictated, and serving as a pattern for all future assemblies of the nation.

We have here the three estates of the realm—the clergy, the baronage, and the Commons—assembled in the same Parliament, and they all met apart so as to form three separate Houses. The knights of the shire belonged rather to the baronage than to the Commons, and at first met with them. They were supposed to represent the smaller tenants who held land direct from the Crown, and were themselves barons, but of an inferior degree. It is possible that they did not feel quite at ease among their great neighbours; it is also possible that their great neighbours did not care for their company. Whatever may have been the cause, the knights of the shire soon joined the representatives of the cities and towns, thus forming that body of squires and country gentlemen who have ever since been such an important element of the House of Commons. A different fate attended the estate of the clergy; they met apart, and voted their own supplies. The prelates sat, by ancient custom, with the barons, in what may now be described as the House of Lords, and, as the heads of the Church, they also sat with the clergy. Perhaps it is mainly owing to this double representation that the clergy, as a body, soon ceased to be considered as a part of Parliament. Their House became the House of Convocation, which is always summoned to meet at the same time as Parliament, but has no organic connection with it. It is also to be observed that the earls and barons were summoned by special writs. This was in accordance with previous custom. But writs were not now sent to all who constituted the baronage—not to all who had been previously accustomed to meet in Parliament. The practice of summoning them by a special writ gave the king some power of determining the composition of the Upper House, and the limitation introduced on this occasion afforded fresh evidence of the new departure which was intended. The Parliament met in stormy weather. The barons had not renounced their quarrel with the king. They refused to go abroad except to defend his own dominions and in attendance upon him personally, and they refused to make him any grant unless their

grievances were first redressed. They met in arms, and everything foreboded a civil war, but at last the king gave way. He assented to the famous statute called *de Tallagio non concedendo*, by which it was enacted that no tax should be levied without the consent of Parliament, and that no goods should be seized by royal authority without the consent of their owners. By the same statute the king confirmed the charters, together with the free customs of the clergy and laity, and annulled all proceedings in contravention of them. With the enacting of this statute, which has ever since been regarded as one of the fundamental laws of the realm, the representatives of the Commons of England may be said to have begun their participation in the management of public affairs under promising auguries.

PAYMENT OF MEMBERS.

The change in the composition of Parliament which we owe to Edward must have had an invigorating effect upon the political life of the country. It furnishes the date of a new epoch in our national history. Henceforth the nation feels itself to be one both in interest and sympathy. The most distant parts of the realm are brought into organic connection with the great national council at Westminster. When a new Parliament was summoned the writs were sent to the sheriffs of the counties, who forwarded to the proper authorities those intended for the towns and cities. At the next meeting of the county after the receipt of the writ the knights were elected, and it is probable that the names of those who had been elected for towns within the county were declared at the same meeting. Our ancestors did not at first regard the right of sending representatives to Parliament as a very desirable boon. The knights and burgesses had to be paid for their services, and it was not left with their constituents to fix the rate of pay. A statute of Edward II. directed that a knight should receive four shillings a day and a burgess two shillings, the period for which the pay was given dating from the time of their leaving home to the time of their return. At the end of the session the number of days was reckoned up, and an order made upon the sheriff for the money due. Some of the counties tried to escape the burden. Among others, Lancashire pleaded poverty, and begged to be let off. The political benefits of representation were not at first perceived, and were not considerable. The chief business of the representatives was to grant money to the king; but it was soon found that great power belongs to the holder of the purse. Before a grant was given some favour was usually asked. At first it was meekly petitioned for, but though the form of a petition was retained it soon grew into a demand, and the Commons made sure that it would be conceded before they parted with their money.

Hence the maxim, which has come down to our time, "grievances before supply;" and hence, also, the number of motions on going into committee of supply, which till lately ministers found so troublesome. The words have no meaning now, when the legislative power, as well as the money power, is wholly in the hands of Parliament; but they serve to remind us that we owe most of our political privileges to the necessity under which our kings lay of going to Parliament for their cash supplies.

THE WAR OF THE ROSES.

Having now seen Parliament in its new form fairly under way, we need not pause at each particular stage of its long voyage. It will suffice to mark generally the vicissitudes it experienced, and to take the soundings at critical points. After the three Edwards had passed away the reign of Richard II. gave us something like a renewal of that of Henry III., and it ended with his deposition at the hands of Parliament. There were, of course, co-operating causes. The king's cousin, Henry of Lancaster, son of John O'Gaunt, was ambitious of the crown, and was ready to back his claim by force of arms. But he saw the great advantage of having Parliament on his side, and was ready to accept what was in fact a parliamentary title. It happened then as had happened before, and was to happen again, that the interests of the country and those of the new claimant were identical; and, in preferring the claims of Henry to those of the actual possessor of the Crown, Parliament exercised a power which had been vested from the oldest times in the "wise men" of the realm, acting on behalf of the nation. Henry was on the popular side. One of the Acts passed in his reign declares that knights of the shire shall be elected in open court, by all who are present, whether or no they have been specially summoned. It would seem that complaints had been made of the large number who attended, some of whom, it was perhaps alleged, had no right to vote, and the sheriffs had probably attempted to impose some limitation which it was the purpose of the Act to forbid. Some years later, in 1430, in the reign of Henry's grandson, an Act was passed with an opposite intention. It stated that in many counties the elections of knights of the shire had "of late been made by outrages and excessive numbers of people, many of them of small substance and value, yet pretending to a right equal to the best knights and esquires." To put a stop to this alleged abuse it restricted the right of voting for knights of the shire to persons possessing a freehold in the county of the yearly value of forty shillings. This sum was equal to twenty pounds of our money. We know it still as the forty shilling franchise, and had reason to prize it before the recent extension of the suffrage to all occupiers.

The accession of Henry IV. had one important result. There was the elder branch of Clarence which was afterwards united by marriage with the younger branch of York, and it was with them, first in the elder line and afterwards in the united line, that the right of succession by priority of birth rested. The House of Lancaster was in possession of the throne, but the House of York did not forget its claims, and took the first opportunity for asserting them. This led to the long series of faction fights known as the War of the Roses, which ended in the battle of Bosworth Field and the accession of Henry Tudor, Earl of Richmond, as Henry VII. Through this long period the House of Commons played a watching and waiting game. The military forces of the nation were in the hands of the barons, the Lords of the Upper House, and the nation had no great interest in the result of the struggle. One king would do as well as another. Parliament had given its sanction to the House of Lancaster, but when the last king of that House—Henry VI.—though good and amiable, showed himself too weak to govern, Parliament had no scruple in recognising the claims of his successful competitor, the representative of the Yorkist faction, who ascended the throne as Edward IV. Still more readily did Parliament assent to the accession of Henry VII. after the unpopular king, Richard III., had been disposed of in battle. Henry had the most shadowy of titles, though he fought in the name of the House of Lancaster; but his marriage with the heiress of the House of York bade fair to put an end to a bloody struggle of which the nation was heartily tired, and Parliament welcomed the arrangement, though it had, in fact, but little power to take an independent course of its own, whatever might have been its disposition.

PARLIAMENT UNDER THE TUDORS AND STUARTS.

The period of the Tudors brought with it a great change in the relative importance of the two Houses of Parliament. The barons had slaughtered each other during the War of the Roses; the result was a great diminution in the number of the lay lords in Parliament. In the reign of Edward III. there were eighty-six; when Henry VII. ascended the throne there were but twenty-nine, though, to redress the balance, there were at this latter period forty-eight spiritual peers, including twenty-seven abbots and priors. When Henry VIII. abolished the monasteries twenty-seven of the spiritual peers disappeared, leaving only the archbishops and bishops. By this time new lay peers had been created, but the total number of peers, both spiritual and lay, was only seventy-four, while in the House of Commons there were ninety county members and 253 borough members, making together 343. The spiritual peers, who, even after the abbots and priors had been removed, formed more than

a third of the Upper House, were stripped by the reforming measures of Henry of much of their influence, and the new peers, who were mostly Court favourites, had not much weight either with the Government or the country. Over against them in the House of Commons there was a solid phalanx of between three and four hundred members, representing the growing forces of the State, the greater part of its wealth, and the whole of its enterprise. It is not surprising that the Commons became the preponderating power in the Legislature.

Through the vicissitudes of the fifteenth and sixteenth centuries, in its general relations with the Crown, the action of the House of Commons was marked by one characteristic which explains in part how it maintained and extended its power. The House knew very well how much it could do, and did not go beyond the limit which prudence and common sense prescribed. It did not set up a theory and resolve to act up to it. It was always careful not to run its head against a stone wall. When circumstances grew imperious, it yielded; when they became more favourable, it rose to the opportunity. In the words of Tennyson, it knew how "to take occasion by the hand, and make the bounds of freedom broader." This may not seem a very heroic spirit, but it was wise. Had it acted differently it might have been swept away and liberty been confiscated, as happened in France and Spain, through the growing consolidation of the royal power. The same spirit animated it through the Tudor period. Henry VIII. undoubtedly represented the predominating tendencies of the nation. He had with him the sympathies of the towns and of a great part of the counties. The House of Lords was malleable in his hands; it had no real political influence. The House of Commons, left to itself by his other half of the Legislature, and as yet but half conscious of the great power it had acquired, went heartily with the king. No doubt, through this and several succeeding reigns, there was some little wirepulling at work. The sheriffs and the town authorities were open to hints from headquarters, and would do their best to return candidates favourable to the views of the Court. The enfranchisement of boroughs was also in the hands of the king. During the Tudor and the Stuart reigns a multitude of boroughs found themselves invested with the right of returning two members. Some of them, such as Liverpool, grew into large towns, but many, especially in Cornwall, were as small then as when they were disfranchised by the Reform Act of 1832. These new creations were generally made in the interest of the Government, and helped to moderate the political pace when Parliament was going too fast or seemed likely to be refractory. Just before the accession of the Tudors the House of Commons consisted of 296 members; in the reign of Charles II. the number had grown to 513.

The struggle between Charles I. and the Parliament, though of the highest historical interest, had no important constitutional results. It may be said to have been begun, carried on, and terminated outside the pale of the Constitution. James I. brought with him from Scotland a firm belief in the "divine right of kings." It was a doctrine till then unknown in England. It had never received the slightest sanction from the principles of government acknowledged and practised by kings, parliaments, and witenagemots from the earliest times. It found an advocate in Sir John Filmer, in whose patriarchal theory kings are the fathers of their people and entitled to be obeyed with filial deference. This was the theory on which Charles I. acted, and which, in its practical application, Parliament resisted, till in the end he was brought to the block, and a scheme of government established which, in spite of the lofty character of Cromwell, and much against his will, was only an enlightened despotism. England came at last to be ruled without a Parliament, through lieutenant-generals appointed by the great man whom circumstances which he could not control had made the absolute ruler of the State. At his death there was a fierce reaction. The pendulum which had swung violently in one direction then swung as far in the other. Towards the end of the reign of Charles II. the nation recollected itself, and when his successor, James II., in his desire to show favour to the adherents of the Roman Catholic Church, of which he was a member, ventured to suspend the operation of laws which had been passed by Parliament, a storm arose which drove him from the throne.

THE REVOLUTION.

THE Revolution gathered up some of the political fruits of the civil war, and is an event of the largest constitutional significance. The Lords and a House of Commons informally summoned met to deliberate upon the state of affairs. They were relieved of the task of deposing the king—he had left the kingdom; they had only to declare the throne vacant and appoint a successor. The king's flight had been determined by the landing of William, Prince of Orange, at Torbay, at the head of a body of Dutch troops. William, through his mother, was the grandson of Charles I., and in default of heirs of James II. would have succeeded to the throne. He was therefore not a stranger, and he had been invited over by some of the chiefs of the aristocracy as one who, by his birth, his high position in Europe, and as the head of the free republic of Holland, was most suitable to maintain the interests of the Crown, which James had sorely imperilled, and to defend the rights of the people. Standing where he did he was an actual candidate for the throne, but he was not strong enough to act in opposition to Parliament, if he had been

so disposed. He had married the eldest daughter of James, and there was something like a compromise with legitimacy in dealing with a daughter of the late king. The Convention offered the crown to William and Mary, who should rule as joint sovereigns, the executive power resting with him. But the crown was offered on conditions. A memorable document was drawn up, entitled the "Bill of Rights." In it were specified, under twelve heads, the various particulars in which the late king had violated the laws of the Constitution and the constitutional customs hitherto in force, all which acts of his were declared to be "utterly and directly contrary to the known laws and statutes and freedom of this realm." Then follows a declaration in positive form of the rights which had been invaded, and this we will give *verbatim* :—

And thereupon the said Lords Spiritual and Temporal and Commons, pursuant to their letters and elections, being now assembled in a full and free representation of this nation, taking into their most serious consideration the best means for attaining the ends aforesaid, do, in the first place (as their ancestors in like case have usually done), for the vindicating and asserting their ancient rights and liberties, declare:—

1. That the pretended power of suspending of laws, or the execution of laws, without consent of Parliament, is illegal.
2. That the pretended power of dispensing with laws, or the execution of laws, by regal authority, as it hath been assumed and exercised of late, is illegal.
3. That the commission for erecting the late Court of Commissioners for Ecclesiastical Causes, and all other commissions and courts of like nature, are illegal and pernicious.
4. That levying money for or to the use of the Crown, by pretence of prerogative, without grant of Parliament, for longer time or in other manner than the same is or shall be granted, is illegal.
5. That it is the right of the subjects to petition the king, and all commitments and prosecutions for such petitioning are illegal.
6. That the raising or keeping a standing army in time of peace, unless it be with the consent of Parliament, is against law.
7. That the subjects which are Protestants may have arms for their defence suitable to their conditions, and as allowed by law.
8. That the election of members of Parliament ought to be free.
9. That the freedom of speech, and debates or proceedings in Parliament, ought not to be impeached or questioned in any court or place out of Parliament.
10. That excessive bail ought not to be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.
11. That jurors ought to be duly impannelled and returned, and jurors which pass upon men in trials for high treason ought to be freeholders.
12. That all grants and promises of fines and forfeitures of particular persons before conviction are illegal and void.
13. And that for redress of all grievances, and for the amending, strengthening, and preserving of the law, Parliaments ought to be held frequently.

And they do claim, demand, and insist upon all and singular the premises as their undoubted rights and liberties, and that no declarations, judgments, doings, or proceedings, to the prejudice of the people in any of the said premises, ought in anywise to be drawn hereafter into consequence or example.

Such is the second great charter—the greater charter, as we may call it, of our liberties. It will be observed that the document is declaratory. It is not pretended or imagined that any of the rights therein asserted are new. They are set forth as ancient rights—the heritage of the people of England. The Bill of Rights is the last in a long succession of similar declarations, delivered in set form at various times since the Conquest, and delivered still earlier in the shape of recognitions of laws and customs which then prevailed, and of proclamations of such other laws, duly enacted, as the times required. The idea of law, not so much of statute law as of regulative customs which had the force of law, runs like a streak of light through our whole history, broadening and brightening as the years rolled by. The Bill of Rights was a compact with the Crown. The social contract of which Rousseau dreamed has its nearest approach to actuality in the bargain then signed and sealed. The Prince of Orange, on behalf of himself and his wife, accepted those conditions. The crown was thereupon conferred upon them, and the whole Bill was enacted as one of the statutes of the realm. The settlement of the crown on the Electress Sophia of Hanover, granddaughter of James I., and on her descendants, involved no new principle, though it serves to give further emphasis to the fact that the kings of England reign by the will of Parliament and the nation.

CABINET GOVERNMENT.

The reign of William of Orange affords us the date of a change in the machinery of government which, though adopted at first as a mere matter of convenience, has had far-reaching consequences. From ancient times the kings of England have been advised by an inner council, composed of persons of their own selecting. From its close and confidential character it acquired the name of the Privy Council, and those who belonged to it took the title of privy councillors. The title is now in itself nothing more than an honorary distinction, conferred usually upon persons who have served the State in some political or administrative capacity, but giving them no right to advise the sovereign unless required to do so, which, unless they belong to the Government of the day, they seldom are. William had his inner council, and as he wished to be impartial he put men on it regardless of their politics, whether Whig or Tory. But the House of Commons had become all powerful. No policy could be carried out and no measures could be passed which did not command a majority, which, of course, was a party majority, and the king's favourite method of choosing his ministers from both parties exposed him to much embarrassment. The Earl of Sunderland thereupon told him that this would always happen so long as he tried to sit upon two stools. His best plan would be to sit upon

one stool or the other; to choose his advisers exclusively from one party, and that must necessarily be the party which for the time being had a majority in the House of Commons. A more fruitful suggestion was never made. The king adopted it. The Whigs had then a majority in the House of Commons, and the king chose a Whig Administration. The men who then acquired power kept it, a brief interval excepted, till the House of Hanover was on the throne. The lease of power was then renewed in other names, and Whig ministries of varying complexions remained in office till their long administrative career was terminated by George III.

What is the practical effect of this arrangement, which entrusts the business of government to ministers selected from the party that for the time being has a majority in the House of Commons? It means, in the first place, that the ministers of the Crown are virtually selected by that assembly. It is not enough that they belong to the party which has a majority in the House. They must personally enjoy the confidence of that majority, otherwise there would be no reason for considering the party aspects of the case at all. Not all at once, but gradually, the custom arose of selecting one eminent man as Prime Minister, and leaving him to choose his colleagues. Nominally they are all on the same level, but really the Prime Minister is, as the title he now bears implies, at the head of the whole concern. He constructs the Cabinet, he appoints to every place in the Government, and the entire fabric stands or falls with him. Of course, the king appoints them, and they are his ministers, the servants of the Crown; but he can only appoint those whom the House of Commons chooses to accept, and the most important man of all, the person who shall fill the office of Prime Minister, is as clearly and as peremptorily designated as if his name were sent into the royal closet by a resolution of the House of Commons. Sometimes a choice seems to be left to the Crown, but it is only in those rare cases when two politicians, whatever their personal merit, happen to be equally acceptable to the House of Commons, and even then a vote of the House would at any moment compel the Crown to dismiss the one and accept the other.

THE CROWN AND THE HOUSE OF COMMONS.

But the arrangement has a further significance. It necessarily puts an end at once and for ever to any antagonism between the Crown and the House of Commons. So long as the Crown accepts as its ministers the men who are designated for its choice by a majority of the House of Commons, there can be no collision between the two powers. The one passes into and is embodied by the other, so that for the double action which once existed there is but a single one. This explains the disappearance of the right which the Crown

once exercised of refusing its assent to a Bill which had passed the two Houses. The right has fallen into disuse for the best of reasons—there is no longer any use for it. So long as ministers command a majority of the House of Commons, no measures can pass of which they do not approve; and the Crown cannot refuse its assent to measures sanctioned, and for the most part framed, by its own ministers. The prerogatives of the Crown, the name given to those unusual powers of the Crown which are not regulated by statute, acquire a different aspect when they are exercised through ministers possessing the confidence of the House of Commons. They can then only be used with the assent and approval of the House. They may sometimes give a freedom of action to the executive which is useful in an emergency, and the House of Commons is a guarantee that they will never be employed to the detriment of the people.

In these observations it is assumed that the House of Commons is the ruling power in the State, and such, in effect, it has now come to be. The Parliament of England, or the Imperial Parliament of Great Britain and Ireland, as it is properly designated since the union of the three kingdoms—Scotland in 1707 and Ireland in 1800—consists of King, Lords, and Commons. The sovereign is, as he always has been, an integral part of Parliament. But these three parts have varied much in their relative degree of power from time to time. Without going further back than the days of the Tudors, it may be said that the Crown in their hands attained to the highest pitch of influence that it has ever had in modern times. Under the Stuarts, amid much contention, much turbulence, and without any concession of right, the House of Commons made itself felt as the strongest power. Throughout the eighteenth century, and for the first thirty years of the nineteenth, the House of Lords had the preponderance, often, let it be said, through the superior wisdom and toleration which it displayed as well as by its firmer hold upon the country; for the House of Commons had degenerated through the smallness and corruption of the constituencies. It was rotten from top to bottom. It took bribes from Walpole to keep the Whigs in power, and it took places and pensions from George III. to do the same office for the Tories. It represented but a handful of the people, and the seats for which its members sat were unblushingly bought and sold. This state of things came to an end with the Reform Bill of 1832. The Lords refused to pass that measure. In no real sense did they ever pass it. The Crown threatened to create peers enough to secure its passing. Under this threat the Tory peers stayed away on the third reading, and it passed through the House in their absence. The Reform Bill put an end to the preponderance of the House of Lords, and the balance of power thenceforth pivoted in

the Commons. The inclination of the balance was fixed and made permanent on the popular side by the second Reform Bill of 1868, which gave household suffrage to the towns, and by the third Reform Bill of 1885, which extended the same boon to the counties. The House of Lords may delay the passing of a Bill, it may compel an appeal to the constituencies as the final arbiter, but it can no longer hold out against a decision of the House of Commons when it is reaffirmed after an appeal to the people. This is one of the settled facts of the Constitution. A minister never trembles before a vote of the House of Lords. If it refuses him his confidence he does not greatly care. He is concerned solely with the House of Commons. So long as that House approves of his policy and supports him he remains in office; when its confidence is withdrawn he disappears to make way for someone else. By virtue of household suffrage, the House of Commons is the nation itself acting through its representatives. In this capacity, after surmounting the one constitutional obstacle of a brief delay, it overrides the peers; while, through the action of the ministry which it creates, it may almost be said to have absorbed the Crown.

MINISTERIAL RESPONSIBILITY.

THE people of England have always shown great tenderness in dealing with the person of the sovereign. Several, it is true, have been deposed, and in two or three instances deposition has been followed by a violent death at the hands of rivals. One king was tried by a parliamentary commission and brought to the block. This extreme proceeding has usually been justified, where a justification has been attempted, on the score of political necessity. The parliamentary party had got the king into their hands, and they did not know what to do with him. They could not trust him, they were afraid to set him free, and so long as he lived he would afford a personal centre round which plots would gather. The easiest plan was to put him to death, and a legal process was devised for the purpose. The parliamentary party chose to hold him personally responsible for the violations of the Constitution which had happened during his reign, and for all the violence and bloodshed which followed. But the exception proves the rule. Putting the king to death was an impolitic act. It revolted the sentiments of much the greater part of the nation; it turned a political sinner into a martyr, and prepared the way for a fierce reaction. The people have always preferred a different method. They have assumed that if the king did wrong it was because he was badly advised, and their wrath was directed against those who had given him the bad advice. Sometimes they were satisfied with their dismissal; sometimes they beheaded or hanged them. It is assumed as a legal maxim that the

king can do no wrong, and no legal process can lie against him. If any legal wrong is ascribed to royal authority it is held to be a mistake—something contrary to the king's real intentions—and the law can set it right. In cases of political wrongdoing, the wrongdoer is not the king himself, though he may have sanctioned or even ordered the doing of the thing complained of, but the person or persons who carried his orders into execution. If the act in question was a clear violation of the law, the law afforded a remedy; but since the acts charged against great political offenders were usually of a mixed character, involving a departure from well-understood custom, or a violation of moral duty even more than a breach of ordinary law, our ancestors usually had recourse to impeachment before the House of Lords, a committee of the House of Commons figuring as prosecutors, or to bills of attainder, which passed like other bills through both Houses, so that a man was found guilty and sentenced to death by Act of Parliament. These methods of procedure have fallen into disuse, though perhaps the process of impeachment may be said to hang up in the constitutional armoury like a rusty weapon, to be taken down when wanted. But cabinet government, through the majority of the House of Commons, has removed the person of the sovereign out of the arena of political debate, and given a new and milder meaning, not always perhaps equally effective, to the doctrine of ministerial responsibility. We know the wishes of the sovereign only through his ministers. What passes between them and him is a matter with which we have no concern. Ministers, or rather the Prime Minister, must make their own bargain. If they do not like to execute the king's orders they can resign, but if they agree to his wishes they must assume the entire responsibility. We know only them in the transaction; of the king we know nothing. It is then for the House of Commons to pass judgment. If they like the measures or the policy proposed, well and good; if they don't, they pass a vote of no confidence, the ministry is overthrown, and another takes its place.

POWER OF THE HOUSE OF COMMONS.

In all constitutional proceedings the great point is not so much how to adopt sound principles or wise arrangements as to provide means for ensuring that they shall be carried into effect. We saw this in connection with the Great Charter signed by King John. It was an admirable schedule of the political rights of the nation, but it remained for many years without effect because there was no power that could guarantee its execution. The arbitrary imprisonment of individuals by warrants issued by the Government of the day was always contrary to the laws of England, yet it happened in almost every reign that men were thrown into prison, and kept there

on pretence of awaiting trial, perhaps till they died in captivity, or till it suited the convenience of the authorities to set them free. The old law of the realm was of little effective use till legal machinery was constructed for its enforcement by the statute of *Habeas Corpus*, passed in the reign of Charles II. Now, wherever a person is confined a writ can be applied for to any judge, and any judge has power to issue it, commanding the person who holds him in custody to bring his body into court, so that the causes of his detention may be examined. If they are not good in law he is forthwith set free; if they are good he is sent back, not to an indefinite term of imprisonment, but to be tried at the next gaol delivery. The law of the Constitution is not always statute law, and there are many things quite essential to free government which the courts of law could not enforce. They are under the protection of the House of Commons, and the House has ample means for enforcing them. All the money which is requisite for carrying on the Government, for paying the civil officials, and maintaining the Crown, the army, and the navy, passes through its hands. It can stop the supply at any moment, and all the authority of the Crown would be insufficient to enforce the collection of a tax which the House had refused to grant. We have seen that by one of the articles of the Bill of Rights it is illegal to maintain a standing army in time of peace without the assent of Parliament; yet we have had a standing army uninterruptedly for the last two hundred years. How is this managed? Every year Parliament passes a Mutiny Bill which gives the Crown the power to keep so many men under arms for one year, but no longer, and lays down rules for their government. If this annual Bill were not to pass the army would have to be disbanded. Over and above this annual Bill the money for supporting the army and navy has to be found, and if it were not forthcoming both services must cease to exist. Without the votes of the House the Queen would have no civil list, the judges no salaries, the departments, the dockyards, the revenue establishments would all have to be broken up, and the whole administration of the realm would tumble into disorder. Assuredly the House of Commons has ample means at its disposal for enforcing compliance with its wishes, and protecting the outworks of the Constitution.

SOVEREIGNTY OF PARLIAMENT.

One point more must be borne in mind—and it is perhaps the most important point of all—suggestive, as many are beginning to think, of some misgiving. Parliament is the sovereign power in the State. The king, at present Her Most Gracious Majesty the Queen, is usually spoken of as the sovereign. This is said of her only in a popular sense, and in the language of courtesy. The Queen is not

sovereign. Sovereignty resides in Parliament, consisting of Queen, Lords, and Commons. Sovereignty is always absolute—that is, it is in the nature of a despotism—though it may spring from the people, and be exercised in their name. In countries which are said to be despotically governed sovereignty resides in a single person, as we see at St. Petersburg, Constantinople, and Pekin. At the other extreme, where popular government in the widest sense prevails, as in the United States, sovereignty resides in the great body of the people. The Congress is not a sovereign body; neither are the President and the two Chambers of the French Republic; neither are the Executive and Legislative bodies of Switzerland. In all these cases there is, as we remarked at the beginning of this paper, a written constitution which defines the powers of the various bodies in the State, and lays down limits which they cannot overstep. For example, as has been said, the United States Congress could not have passed such a measure as Mr. Gladstone's Irish Land Bill of 1870, because it interfered with existing contracts, and this, according to the Constitution of the United States, Congress has no power to do. Every Act of Congress is liable to be examined by the Supreme Federal Court, in order to ascertain whether it violates any article of the Constitution, and so far as it is found to do so it is null and void. The Parliament of Great Britain and Ireland knows no such limitations. Its authority is absolute. It can repeal any existing law, and make any other law it chooses. It is quite within its power to repeal the Bill of Rights. It might abolish the throne and set up a republic. It might pass a law agreeing to annex Kent or Cornwall to France. Of course, we need not disturb ourselves with any such apprehensions. In practical legislation, the absolute authority which Parliament possesses is often a great advantage. It enables the nation freely to modify its laws, to meet political emergencies as they arise, and to shape its own destiny. Each successive generation is its own master. The nation can always do what it pleases. For our security we have but to crave two things—a growth of political intelligence among the people, and the growth within them in the same degree of a pure and strong political conscience, and withal a sense of responsibility adequate to their position. Give us these and we may hope to confront the future in a spirit not unworthy of our ancestors.

INDUSTRIAL LONDON.

BY GEORGE HOWELL, F.S.S., M.P.

I. Boot and Shoe Trades.
II. The Tailoring Trades.
III. The Cabinet-making Trades.
IV. Artificial Flower Making.

A KIND of notion seems to exist in the minds of many to the effect that the Metropolis consists of a vast conglomeration of people, without any distinctive industries on a large scale for their employment, such as are characteristic of certain other cities and towns in the kingdom. For example: Manchester, Oldham, and other Lancashire towns, are renowned for cottons and cotton goods; Bradford, Leeds, and other Yorkshire towns, for their woollens; Leicester and Nottingham for hosiery, lace, and other textile goods; Macclesfield and Coventry for silks, and Kidderminster for carpets. Northampton and Leicester are celebrated for boots and shoes; Birmingham and Sheffield for steel goods, cutlery, and other hardwares; Burslem, Hanley, and Stoke, for ceramic wares and earthenwares; Castleford, and other towns, for glass manufactures; and some other localities for specialities of one kind and another. London is not distinguished similarly, to the same extent and so prominently, for any manufacture in particular. But many of the industries above named are carried on somewhat extensively in various parts of the Metropolis, such, for instance, as artificial flower making, boot and shoe making, cabinet making, and tailoring, all of which form a considerable element in the industrial life of London. These trades are specifically dealt with further on. In addition to these, however, silks are manufactured in Bethnal Green and Spitalfields; glass in the city of London, at Whitefriars, and in Southwark; ceramic wares and earthenware in Lambeth; hats in South London; engineering in various parts of London; chemicals at Bow and Bromley; cigar and tobacco trades in the East of London, and printing all over the Metropolis. But, large as some of these industries are, the people employed in them constitute but a small portion of the entire population of nearly five millions of people, a population larger than that of the whole of Ireland, and more than one-fifth larger than that in Scotland.

I.—Boot and Shoe Making.

It is rather curious that the late Mr. Henry Mayhew did not more specifically include shoemakers and tailors in his interesting pictures of London life, published under the title of "London Labour and London Poor," especially amongst those whom he classified as

"those that will work." It is all the more strange that shoemakers were practically excluded from the series of papers, seeing that one of the men who helped to collect many of the facts in the volumes was a shoemaker by trade, Mr. John Devlin, a man well known to London trade-unionists some five-and-thirty years ago. He knew more, perhaps, of London workshops in his day than any living man. Next to him, probably, was the late George Odger, especially in the shoemaking trade, who was known to all, and nearly knew all, the best craftsmen of this particular trade in London. Mr. Odger was regarded a "don" in his trade, a term at that time used to signify an expert craftsman at his particular handicraft. In later years he did not in any way overstock the trade by his own work. He was often called away from his "seat" on deputations, to attend meetings of one kind and another, trade and political, and was so frequently interrupted by "callers" that a pair of boots were generally a long time on the "lasts" ere he had put the finishing stroke upon them. Odger was one of the old school of craftsmen. He was master of the "awl" and the "lapstone," an expert in the finishing branches of the craft, and could do a piece of closing with most men. The sewing machine, riveting, and other labour-saving appliances, had not then invaded the trade to any extent, and the factory system had scarcely been introduced or even thought of. A man did his one pair, two pairs, or three or more pairs per day, according to the class of work, each completing his own article, except perhaps that the sewing might be done by a "learner" in some cases, or even by an apprentice.

The work was done wholly at "home;" that is to say, there were no general workshops in the trade. Often a shoemaker had but one room, in which the family eat, slept, washed, and worked, the cry of the babies and the music of the lapstone mingling in happy chorus, while he, whiffing his tobacco or plying his awl, would indulge in a happy hunting song, as if to remind himself of the green fields far away in the country, and of the days when he went bird-nesting, years and years ago. His "seat" combined a sitting place while at work and a case to hold his "kit," the whole being about 36 to 40 inches in length, and about 18 to 20 inches in width. The strap for holding the boot on the knee, the lapstone (which "stone" was usually a flat-iron with the handle off), the hammer for various purposes, a pan with water, in which to damp the leather and keep the wax, and some paste in a pot, were generally on the floor or ground by his side. These, with awls, knives, and sundry small articles, constituted the whole kit and outfit of the greatest "don" in the shoemaking trade. When on tramp, in search of a "seat of work," and they were great trampers in those days, the kit was reduced to smaller proportions, all of which could be carried in a

small bundle, generally in a "check handkerchief." Searching for work was called "'casioning," from "occasion" presumably, the full expression being, "Have you any occasion for one of my craft?" The "centres" of trade were then more restricted than now, but the industry was more general—that is to say, in most towns there was a fairly good local trade. Some forty-five years ago there was a pretty large trade carried on at Street, near Glastonbury, in Somersetshire, of a special kind, at the firm of Messrs. Clark, where French boots and shoes were made to perfection. Wrington, in Somersetshire, was also a busy place for shoemaking, where, from about 1846 until some twenty years afterwards, it was carried on by Messrs. Durham.

Although working "at home" was pretty general, yet it was often customary for several to work together in a "shop," as it was called. This "shop" often consisted of a garret, or a room set apart in some dwelling-house, where several worked together. Many lodged together in the same house, or they paid so much a week for a "seat," so as to be in company with other craftsmen. Mr. Odger worked at the house of a comrade, with three or four others, in a garret in Nassau Street, Soho; the house has been demolished by the improvements made in Shaftesbury Avenue, and the adjoining districts. Shoemakers were then denominated the "gentle craft." They were all politicians, mostly radicals of a very pronounced type. They were intelligent also, readers of newspapers and general literature, and some indulged in the luxury of science and art. Not a few of them were writers, also, of some note. Samuel Drew, the philosopher, Robert Bloomfield, the poet, and others, are still quoted as the offspring of the "gentle craft." Many were speakers and debaters, like Thomas Cooper, who was also a writer—poet, novelist, and essayist—as well as preacher and lecturer. The workshop was favourable to debate; the work could go merrily on while discussion was rife on the social, political, literary, or scientific questions of the day. Drinking bouts were also customary, and some went even so far as to believe that sobriety and good workmanship were incompatible. Sometimes a whole garret of men could only boast of one whole coat amongst them sufficiently presentable to go to "shop" in—that is, to take the work home to the employer. The clothes of others were left in the care of "uncle" for a few days, after a drinking bout. The life was a merry one withal, somewhat reckless, but free. The workmen could work or play, as it suited them, with the result that one portion of the week was devoted to "pleasure," the other to hard work.

The sewing machine has gradually and silently revolutionised the trade. Various attempts had been made to introduce machinery into the trade, but it was not until about 1856 or 1857 that the

sewing machine was utilised to any large extent. Its use was not resented, or at least was not resisted in London, the North of England, or in the South, West, or Eastern Counties; but in the Midlands, especially Northampton, Stafford, Daventry, Kettering, Towcester, and Wellingborough, an organised resistance was determined upon, and a strike ensued. The contest lasted for about eighteen months. In the end the men were beaten, and the sewing machine was introduced generally into the trade. Further developments followed, until not only the closing of the uppers, but the manufacture of the boots are now done by mechanical appliances. Riveting was at the first resorted to; now boots and shoes are sewn by the machine. Within five-and-thirty years the whole trade has undergone a change. Even as a domestic industry its days are numbered. The conditions of work are no longer the same. Neither the tools nor the appliances are quite identical with those of yore. The labour is divided into parts, each worker doing a portion only. A "bootmaker" and a "shoemaker" are becoming rarities in the trade. Even the "cobbler" and the "translator" are dying out, as they were once familiar in the stalls or the cellars of London. In their place we have "menders" and "repairers," working in groups, in shops, in the light of day, no longer sitting on "seats," but standing, and using tools and appliances quite unknown a generation ago to the shoemaking trade. If Henry Mayhew had painted the trade as it was, a companion picture might have been produced. As it is, old things have passed away, and behold all things are become new—except leather. In this respect, there is nothing like leather still, though even this has undergone a change.

The manufacture of boots and shoes is now aggregated mainly in a few great centres, and their adjoining districts and villages. Northampton, Leicester, Bristol, Norwich, Glasgow, and London are the chief centres, though some other towns carry on a pretty considerable trade. We have here chiefly to deal with London. The main bulk of this trade in the Metropolis is carried on in Hackney, Bethnal Green, Whitechapel, and the adjacent neighbourhoods. The total number of workers is estimated at about 15,000. These are divided as follows: About 2,750 clickers, about 1,200 rough-stuff cutters, about 5,500 lasters, and about 4,500 finishers. Besides these there are about 3,000 machinists, who are mostly women. The total number of master manufacturers in the above-named districts was, at the commencement of the present year, 403, besides which there were about 25 in the South of London. In addition to the above there are about 100 master boot and shoe makers in the western parts of London, in or for whose establishments the work is mostly hand-sewn as heretofore. But many of even their shops are supplied with stock from either the

before-mentioned districts or from the provincial centres, the bespoke work only being done in the old style—by hand. Even in those shops of the first class very little "closing" is, however, done by hand, the machine having gained pre-eminence for its cheapness, the regularity and cleanliness of the stitch, and the rapidity of its work. The boot-closer of the olden times was a strange, wayward workman. If a "don," he cared little who was kept waiting, whether master, customer, or bootmaker; he would finish his spree ere he finished his work. He would neither be hurried nor bullied. He had his name to keep up, and fine closing injured the eyesight if too closely pursued.

The total number of persons engaged in the boot and shoe trade in East London is estimated by Mr. Charles Booth to be 17,316 (inclusive of masters), or some 2,000 in excess of the estimate before given. Mr. Booth's figures, however, include female machinists, which together nearly approximate to the previously-mentioned estimate, namely, 15,000, and 3,000 machinists, exclusive of masters. Of the total number, nearly 13,000 (estimate being 12,934) are males, of whom about 2,000 are under 20 years of age. The total number of females employed is 4,382, of whom 1,545 are under 20 years of age. The distribution of the workers is as follows: Shoreditch and Bethnal Green 9,266, or 8·77 per cent; Tower Hamlets—including Whitechapel, Stepney, Mile End, St. George's in the East, and Poplar—5,476, or 3·0 per cent; and Hackney 2,574, or 3·48 per cent of the total population engaged in business and trade in those districts. It is further estimated that the total population of those districts have increased by about 6 per cent since the census in 1881, while the percentage employed in the boot and shoe trade has increased by 12 per cent. How far the recent change from domestic manufacture to factory and workshop life will affect the number of workers it is not possible to say, but it is stated that a number, especially of finishers, have left the locality since the agreement was first arrived at, early in the present year.

The process of bootmaking is first to cut out to a pattern the leather for the uppers; this is done by the "clicker." He is required to be skilful in dividing the skin in such a way as to avoid waste. The clicker in a city bespoke shop will get from 30s. to 35s. per week, the hours being about ten per day. The hand-closer will earn from £1. 5s. to £2. 2s. or £2. 5s. per week—some exceptional "closers" will earn even more. Others, on the contrary, would scarcely exceed 20s. per week, even at bespoke work, for the grades are many, from the swell shop in the West to the more humble in the East End of London.

As the bespoke trade is now comparatively limited, the remarks thereon need not be extended. A very large proportion of the

uppers used, even in London, are made in factories at Northampton, Wellingboro', and other places out of London. There are, however, several houses in London where the uppers are prepared and manufactured. In one of these establishments from 1,000 to 1,100 are turned out every week, of which perhaps 100 or 150 will be special, or to order, for particular customers, or shopkeepers engaged in the trade. What is called "long work"—Wellingtons or top boots—is done mostly, but not wholly, by men, the larger portion, but not in all cases, by hand. The short work is mostly done on the premises. In the more general trade, where the labour is divided and machine work is generally done, there are—(*a*) "fitters," who prepare the work for the machine; (*b*) the machinists, who do the stitching and sewing by machines; (*c*) the buttonhole makers; and (*d*) table hands, who sew on buttons, and perform other work not performed by the machine. These four classes of hands are mostly females, who are paid much lower prices than the men, even when the latter can be obtained for that kind of work. The "uppers" being ready, they are "given out" to the hand-sewn makers, who are supplied with the necessary leather—"bottom stuff," as it is called—for the soles, the heels, the shanks, stiffenings, &c. Hitherto this work of making up has been done by the men in their own homes, or in a workshop or room where several worked together, on payment of so much a week for a "seat," ranging from 1s. to perhaps 2s. or 2s. 6d. per week. The wages or earnings of these makers up vary very considerably, from 23s. to as much, perhaps, as 42s. or 45s. per week. But these high rates are exceptional, even for hand-sewn work. The prices paid for this kind of work do not appear to have been very much reduced of late years, but fewer men work at this branch, and only a few youths learn the hand-sewn trade at the present time.

The trade has so completely changed, in all respects, that hand-sewn has given place to machine-sewn boots and shoes to a degree which is far greater than many persons imagine. Even "bespoke" goods are often machine-made, the purchaser not being able to tell the difference. The work is not done by motive power—very little machinery, driven by gas or steam, being used in the boot and shoe trade. The sub-division of labour, however, enables a workman to turn out a much larger quantity of work than could be done by the "all-round man," who made the entire boot by himself. The three chief types of workers are the clicker, the closer, and the maker, but the labour of these is sub-divided. The clickers cut out by card-board, or zinc patterns; the "rough-stuff cutters" cut out the soles, the heel pieces, and other parts for the bottoms, with the use of steel appliances, by patterns. The uppers are fitted for the machine by a distinct class generally, and consist of some dozen or

fourteen separate pieces. These are sewn together by women and girls, under the supervision of a foreman or forewoman, and completed by the several hands through which they have to pass before they are ready for the laster. The laster fits the uppers to the last and prepares them for the machine, whether it be the sewing machine, or for riveting by brads or pegs, as the case may be. If machine-sewn, the sole is grooved or channelled to receive the stitches; the edges of this furrow are then closed up to cover the stitches in the sole, though they may show in the welt side close to the uppers. The heels are often attached complete by a single process, by a distinct set of operators. When the boot is completed in the rough it is handed over to the finisher, who trims the soles, the heels, &c., blackens and polishes the edges, and adds those little finishing touches which make the completed boot presentable for the retail shop and to the customer. These processes may be the result of several hands, according to the shop and the class of workers.

The time of employment in a factory is from 8 a.m. till 7 p.m., with an hour for dinner, and half an hour for tea. The men working on the piece take less than the full meal time usually. Overtime is often worked if trade is busy; if worked, the time-workers only get the ordinary wages for the time so worked. Before the recent change, from the domestic workshop to the factory, most of the work was taken out. Clicking and rough-stuff cutting were done on the premises; the closing and lasting were often given out, and very frequently the machine sewing also. The finishing was almost always done "at home." A few of the larger manufacturers will turn out 10,000 pairs in a week, or even more; but a large proportion turn out from a few gross to 1,000 or 5,000 pairs per week.

The wages and earnings of the workers vary very considerably, more, perhaps, than in most trades. A first-class pattern cutter may get as much as £3 per week; a first-class clicker from 38s. to 42s. per week; less experienced men from 28s. to 30s., 34s., 36s., or 37s. per week; young hands from 14s. to 25s. per week according to circumstances. The apprentices to these branches are seldom regularly bound by indenture, but they serve from four to five years, beginning at a wage from 3s. to 5s. per week, with a rise of a shilling or so every six months. Industrious and quick learners may get a bonus of from 1s. to 2s. 6d. per week in special cases, or at busy times. It is mainly from these two classes that the small masters are recruited. They get to know the value of the leather, its capacity and uses; the quantity a single or a number of skins will cut, and other information specially useful to an employer or manufacturer.

In the machine-room, the foreman or forewoman will get as much as 40s. or 50s. per week, according to the shop. First-class fitters

may earn from 18s. to 22s. per week, less experienced hands from 14s. to 16s. per week. Button-hole makers get from 15s. or 16s. to 18s. per week. Learners give three months generally, and are then paid from 5s. to 7s. 6d. per week. The wages of table-hands vary greatly—from 10s. to 12s., or even 14s. per week; but many young girls only get from 5s. to 7s. 6d. per week. Eyeletting is paid for at rates varying from 6s. to 9s. per week. Trimmers from 12s. to 14s. per week on good work, but on common work only from 5s. to 10s. per week. Room-girls, doing odds and ends, get from 2s. 6d. and 3s. 6d. to 5s. or 6s. per week. For overtime all these women and girls get extra beyond their wages, but usually are only paid at the same rates. Hitherto much of the work in preparing the uppers has been given out to women working at home, sometimes single handed; at other times it is under the sub-contract system, one taking the work in bulk and then employing helpers, varying from two or three to a dozen or twenty. The wages of those who work under this system will vary from 9s., 10s., 10s. 6d., to 12s. or even 15s. per week for the better class, and from 4s. 6d. to 8s. or 9s. for the less skilled portion of the work. But it is doubtful if any of them earn on an average more than from 10s. to 12s. 6d. per week, while the more underpaid would only average from 6s. to 7s. 6d. per week. A careful computation of some typical cases showed only about 6s. 8d. per week, and another of 18s. 4d. per week, both of whom took the work and employed helpers, the average being for the entire year. Other typical cases showed the average takings to be from 8s. 8½d. to 11s. 2d., 16s. 4d., 19s. 3½d., 28s. 8d., and in one case as high as 35s. 2d. per week, but all of them were sub-contractors employing hands, the above being net.

The "rough-stuff cutters'" rates of wages vary according to the work. A good fitter-up may get from 30s. to 35s. per week; the better class of those who work the "presses" may get 24s. or 25s. per week, but the more general rates will be from 20s. to 22s. per week, while the boys or youths employed in this department will vary from 5s. to 17s. or 18s. per week. Judgment is required for this kind of work, for which the higher rates are paid, but the mere labouring portion of the work is badly paid. The foreman in a lasting shop will get about £2 per week, but some are paid by results. In a few instances a good laster in a bespoke shop may get from 35s. to 40s. per week. But most of the work is done by the piece. The complaint generally is that the work is irregular. In busy weeks a first-class hand might earn from £1. 18s. to £2. 2s. per week. The net average is, however, much lower. Taking the average in a few firms, by way of example, it is found that the averages were £1. 3s. 5½d., £1. 5s. 0½d., £1. 5s. 8½d., to £1. 9s. 11d., the best average not exceeding about a guinea and a half per week. The

general average of earnings might be taken at from 25s. to 27s. per week. When the lasting is done at home the wife and children may assist, when the earnings of the whole family will be proportionately greater. The net average of a number of picked steady workmen is stated to be about 27s. 4d. per week, the maximum, when in full work, being about £2. The employment of the family has tended to lower wages, in much the same way as the "team" system—that is, the employment of less skilled labour to do certain parts connected with the process of lasting. This the unions discourage, as far as possible, as being one of the branches of the sweating system. Under this system the wages range from 7s. or 8s. to 10s. per week for boys or learners, to 15s. or 16s. for the less skilled, and to 18s. or 25s. per week for the better class; even the "masters'" earnings do not exceed 30s. to 35s. per week in such shops.

The sole-sewer appears to get the highest average wages. If a good hand, and skilful at his work, which requires strength as well as skill, a first-class hand may earn as much as from 40s. to 42s. or 43s. per week, and the less skilled from 28s. to 36s. per week. But often this work is "put out," in which case the payment per dozen varies according to the quality of the work. The price varies from 3s. per dozen to 3s. 6d., 3s. 9d., 4s., 4s. 3d., or 4s. 6d., the net earnings of the men being from 25s. 10d. to 22s. per week, boys 6s. to 7s. per week, the masters from £1. 19s. 4½d. to £2. 0s. 4d. per week. The masters deduct from 1s. to 1s. 3d. or 1s. 6d. per week from the prices paid by the manufacturer. The machines may cost £60 or £62 each, so that the sweating master does not get so very much, whether he buys or only hires the machine.

The finishers have hitherto mostly worked at home, or at the hired "seats" in a workroom. The higher grades get better wages, but in general the average earnings are not more than in the lasting branch of the trade. The finisher may employ his own family or boys, the latter getting 6s. or 7s. to 10s. per week, according to ability. Finishers often work for more than one master. They are able to sub-divide the labour into three or four portions, thus getting a great degree of skill and deftness in a particular branch. It seems that the sweating system has been almost more operative in this branch than in the others of the boot trade. Jewish labour, and other foreign hands, and boys, as "greeners," are, or have been, largely employed. The workrooms are small and badly ventilated, the dwellings are unsanitary, and the general conditions are bad throughout. The wages at these shops will not average more than 26s. per week when in full work, but for the year only from 16s. to 20s. per week. Some very quick and skilful men may earn, at a pinch, from £1. 15s. 3d. to £2. 0s. 5d. per week. The prices paid range from 2s. or 2s. 6d. to 4s. or 5s. per dozen pairs. Even the

master sweater may only get from 34s. or 35s. to 40s., 45s., or 50s. per week; some have earned from 55s. to 60s. per week net. The workers—masters and workpeople—work long hours in the busy season to turn out all they can; in the slack season their condition is often very deplorable.

Pegged boots are not extensively made in the London district, but in some cases, it is stated, the men can earn a fairly good wage at this work when steadily and regularly employed; but the average would not be high, taking the year through. In exceptional cases men have earned as high as 40s. to 42s. or 43s. per week when in full swing, but the instances are not numerous. Riveted boots are made in considerable quantities in some parts of East London, especially in Shoreditch and Bethnal Green, more especially for women and children's boots. The earnings are about the same as in other branches of the trade. The sew-round trade is more general in East London than in many of the shoe-making districts, the work being mostly done by hand. The shoe is lasted inside out, the sole being sewn on without a welt; the shoe, or slipper, is then "turned" and finished. The best of these goods are made by the larger firms, but much of the manufacturing is done "at home," the earnings varying from the barest pittance to the wages of the better class in the trade. The season only lasts about six months in the year. Women are more largely employed in this branch than in any other. The inferior work is mostly done by Jew sweaters, in small, close rooms, sometimes even underground; these are often used as sleeping-rooms by the workers, who toil from 14 or 15 to 18 hours per day in the busy season, sometimes nine or ten working in one room in a dwelling-house not of the largest proportions. A typical case of five workers showed that the average earnings were as follows: One class of workers in the team, 7s. 3½d. per week; another, 10s. 2½d.; a third, 11s. 3d.; a fourth and a fifth, 13s. 1½d. per week; the master sweater and his wife netting about 35s. per week between them. These earnings were on fairly good work only. But some of them only net about from 15s. to 20s. per week, after paying all expenses. The net earnings will vary from 12s. per week to 22s. per week, after payment of expenses incidental to the trade, for grindery, light, fuel, rent, and other necessaries and conveniences.

The boot and shoe makers cannot be accused of neglecting their own interests in the matter of organisation, although the proportion of members of the several trade unions, to the total workers at the trade, is not so large as it might and ought to be. Even in the palmiest days of the craft, the number of society men was small, relatively, to the aggregate number employed. The older societies are now almost entirely amalgamated into one union, called the Amalgamated Society of Boot and Shoe Makers, while the newer

branches of the trade are amalgamated under the name of the National Union of Boot and Shoe Riveters and Finishers. The latter had a total membership of 11,410 members at the close of 1888; during 1889 the membership largely increased. The former had a membership of 3,232 at the close of 1887, which number has also increased since that date. In London the number in the National Union was 1,800 in 1889, but the recent movement has largely augmented that number. The Amalgamated Society has three or four branches in London, the members of which are mostly connected with the hand-sewn trade, such as "closers," "men's men" and "women's men," and "lasters" and "finishers" employed in the machine-sewn and riveting trade. Most of these members work under a wage list, or standard list of prices, called a "statement," the prices in which until the present year (1890) were fixed in 1882. The rates in this statement are regulated by class, such as first-rate, second-rate, third-rate, or fourth-rate, as the case may be, according to the shop. These regulations were in force in about twenty-one shops, twelve of which were first-rate, two second-rate, six third-rate, and one fourth-rate. These rates are undergoing revision in 1890. The regulations in the newer branches of the trade were somewhat different, according to the nature of the work, such as best, seconds, thirds, &c., denoting mainly the quality of the materials used, but which formed the basis of the wages scale. The last of these statements, before 1890, was agreed to, after a strike of about 300 firms, in 1884.

The total number of shops in the trade to which the first or second class statement did not apply was estimated at about 400, many of which were entirely beyond the influence of the unions. In these the prices varied considerably, as previously shown. The piecework prices were in many cases some 30 per cent below the union standard statement price; but it is alleged that the net earnings in non-statement shops nearly equalled those in statement shops, owing to the superior quality of the work exacted in the latter. The employers differ, also, in their treatment of the workers—some of the non-statement employers being good, others indifferent, others bad in the extreme. Recent changes in methods of work and pay, introduced in the Northampton district, have altered somewhat the basis of prices, as the quality or nature of the materials no longer constitute the sole criterion of prices in statement shops. Manufacturers are more free as to the grade, or description of goods to be made, for the Northampton list includes no fewer than seven qualities, and an extra quality to meet special requirements. The Northampton Board of Conciliation decides, in case of a dispute, as to the class or grade of the article, and consequently determines the price to be paid therefor. This wage-standard is regarded as being

flexible enough to meet all emergencies, protecting alike the interests of manufacturers and workpeople. Similar arrangements have been made in other districts, and the London trade is now, and has been for some time, engaged in formulating and perfecting a standard statement for all branches of the trade on the same lines, a Board of Conciliation having already been formed for that purpose. The "Permanent Board" met for the first time on Thursday, July 3rd, 1890, after being engaged for some months in arranging the details as to the erection of workshops throughout the Metropolis. The latter work occupied the attention of fourteen meetings of the Temporary Board, called into existence for the purpose of settling the workshop question, after which that Board merged into the Permanent Conciliation Board for London.

By far the most important movement in the boot and shoe trades of recent years was commenced in January, 1888, when a joint committee of employers and workmen framed certain rules for the proposed Board of Conciliation for the boot and shoe trade of London. The proposals made were not deemed to be satisfactory, and the workmen rejected them in February, 1888. In March, the workmen applied to the manufacturers to appoint representatives to meet the delegates of the workpeople to draw up a "statement" for London; the employers replied that they could not do so unless the workmen agreed to arbitration; the committee of the men's union declined to accede to this proposal in the following June. In August, the workmen again asked the employers to nominate a committee to draw up a "statement;" the employers agreed to do so in October, and the Joint Board met on December 31st and agreed to "draw up a statement of wages for the whole of London," but the negotiations again fell through in consequence of a difference of opinion as to arbitration. In 1889, negotiations were re-commenced with the view of adopting a general statement of prices for the whole of London, when the workmen decided to call upon the employers to provide workshops for the men instead of the work being "taken out and done at home," as formerly. The employers were not indisposed to accede to the new proposal, but stated that they could not complete arrangements by the date mentioned, namely, March 24th, 1890. In January, 1890, negotiations were re-opened, and, after many interviews and conferences, it was agreed that workshops should be ready by June 25th, upon the men accepting "the principle of arbitration for the adjustment of all other disputes." In the event of any workshops not being completed by that date, the matter was to be dealt with by the Board of Conciliation and Arbitration. As before stated, the representatives of the employers and of the workmen met frequently—fourteen meetings in all—to adjust the details as to workshops, and several

aggregate meetings were held during that time, and by the end of June, 1890, the preliminary arrangements were completed satisfactorily to both parties.

These negotiations, extending over nearly three years, were conducted on the whole with good temper, though not entirely without friction on some occasions. A partial strike took place in March, which, while it tended to make the negotiations delicate, eventuated in decisive action on the part of the employers, and prompted a more vigorous determination on both sides to close the dispute on amicable terms. The difficulty had been with the "sweating shops," by whom an effort was made to delay the issue, or render the settlement partial only. But the movement had become too widespread and powerful to be longer resisted; postponement would but complicate matters, and pressure was therefore brought to bear upon employers and employed to close the dispute. So far the object sought was attained. The agreement ultimately made and entered into has effected quite a revolution in the boot and shoe manufacture in the Metropolis. In future the entire manufacture, with the exception of the sew-round trade, and certain portions done by females, will be brought under the factory and workshop system, and the shops will be regulated by the Acts relating to Factories and Workshops. Matters pertaining to wages will henceforward be governed by a wages statement, applicable to all branches and all grades of work; and all disputes will be dealt with by Boards of Conciliation and Arbitration, now created and established. Such important changes have seldom been accomplished in so short a space of time, and never with such mutuality and good feeling as have characterised both employers and employed, during their prolonged negotiations, in this trade. If the employers and the workpeople continue to pull together, the pernicious system of sweating will be stamped out; the sweating dens, with their unsanitary surroundings, will be no more, and in their place the workers will have spacious and well-conducted workshops, which will raise the *morale* of the trade, conduce to regularity in the hours of labour, and generally tend to improve the condition of all classes of workers in this important industry.

When the Permanent Board first met, on July 3rd, 1890, the arrangements for workshops were so far advanced that everybody was satisfied with the progress made, and no difficulties were raised in cases where a little extension of time was required to complete the erections, or to finish the equipment of the building for the reception of the workpeople. But the Board had to face the other difficulty, that of the statement list of prices, a subject which had been delayed pending the erection or provision of workshops, and which had in reality led to the movement for workshops in the first

instance. The workmen had speedily elected their representatives for the new Board, the several branches of the trade being selected to send delegates. The employers had also speedily elected their representatives. On Tuesday, July 15th, the Board of Conciliation and Arbitration met "for the purpose of compiling an uniform statement of wages for London in accordance with the terms of the settlement of the late strike," when an employer was elected chairman, and a workman vice-chairman. The first business done was the passing of a resolution, proposed by the vice-chairman, and seconded by the chairman, declaring that after July 28th no work shall be done outside the workshops by men at home. At a subsequent meeting, on July 22nd, a code of rules was agreed to, and it was then decided to meet weekly to deal with trade questions. The most pressing subject which engaged its attention was the statement list of prices for this large branch of the trade. The variations in the different classes of work are so many, and in some instances so important, that time was required to compile a complete statement which should meet all cases and satisfy all parties. During the months of August and September, the compilation of the statement list occupied the attention of the Board, and October has dawned without seeing the completion of the list; but progress is being made, and ere long it is expected that the negotiations will have resulted in an agreement which will cover and include all details connected with the branches represented at the Board of Conciliation and Arbitration.

The sew-round branch of the trade was not included in these negotiations, and was not affected by the decision as to the provision of workshops. This branch had therefore to make its own terms, and effect a settlement on a basis suitable to its circumstances and conditions. It is perhaps to be regretted that the workers in this branch—and they are numerous in London—are not to be provided with workshops in the way as the other branches of the boot and shoe trades. But the men themselves have provided what they term "combination shops," for which they pay one shilling per week; in these the work is carried on as in an ordinary workshop. This shilling per week includes fuel and light, and also newspapers, for the shoemaker must have his literary food, as well as the "bread that perisheth." Although not participators in the movement for general workshops, the sew-round men had their fight for a "statement list." In this, as in the other branches, there was some show of resistance to arbitration; but it was not against the principle of arbitration, for that is provided for, and is embodied in the rules of the Union. The contention was that a "statement" should precede the constitution of the Board. The delay in the completion of the statement list for the other branches led the sew-

round men to be more persistent in their demand for a statement list, as a condition precedent to entering into an agreement for the establishment of a Board. They therefore put forward a statement list of their own. This statement was submitted to the manufacturers on the 11th of August, but the latter declared it to be unreasonable. It was subsequently agreed that the matter should be considered by the Board of Conciliation to be elected for the sew-round trade. Meanwhile the masters prepared a statement, which the men refused to accept. As no agreement could be arrived at, the men determined to strike, and towards the middle of September a partial strike took place. This action of the men was resented by the manufacturers, but it eventuated in bringing the employers and employed face to face with the difficulties of the situation. After a short time, and some expenditure of money, and not a little recrimination, the two parties met, when the points in dispute were speedily reduced to a few items, which the Board was enabled to grapple with and settle. The statement list for the sew-round branch was consequently completed and agreed to ere that for the other branches had been settled. Practically the difficulties in the whole trade are virtually over. When once these elaborate standard lists, or statements of prices, are agreed to, there will be little difficulty in settling all disputes amicably at the weekly meetings of the Boards of Conciliation and Arbitration, in all branches of the trade. Those negotiations, in which the employers and employed in the boot and shoe making industries of London have been engaged, have been attended with many difficulties, and some friction; but they have eventuated in effecting improvements in the conditions of labour which will be of permanent advantage to all parties, workers and manufacturers alike, in the whole of the Metropolis. The net increase of wages by the new statements is not yet fully known, but it will be considerable. The increase in prices effected by the new statement of the high-class trade of London has been 1s. per pair, on the average, for men's and women's; the prices paid to-day being from 1s. 9d. to 2s. 6d. per pair on the prices of 1870, or more than 50 per cent all round.

II.—The Tailoring Trades.

Tailoring has ever been, and still to a very large extent is, a domestic industry. But tailors, like other men, are gregarious, and hence they often worked together in groups, frequently limited to twos or threes, but sometimes extending to half a dozen or more in one room. The fatal facility with which women and girls could be employed in this trade led to acute competition long before the sewing machine was introduced. The journeyman tailor utilised

the services of his wife and children to increase his earnings, and subsequently the labour of these women and girls was used as a means of reducing the wages of adult male workers. The history of all domestic manufacture is alike in this respect, and ought to teach a lesson to married men not to depend for any substantial addition to their weekly earnings upon the employment of their wives and children in the handicrafts at which they themselves work. Married women ought not to be called upon, except in extreme cases, to supplement the income of the household; the unmarried and the widowed must of necessity earn their own living, unless they have a competence, or are otherwise provided for. Tailors, like hand-loom weavers, have always been ill-paid for their work, certainly all through the present century. They were never remarkable for their attire; they gave no indication by their dress of their art in "making the man." If "the coat makes the man," as tailors were wont to say, they evinced an utter disregard of their own maxim. The whole of their skill was concentrated upon, and exercised in, the making of other men, in which art they were and are adepts. They toiled and stitched for food and for shelter, and pointed with pride to the specimens of their handicraft, as worn by the wealthier classes of society.

The workshop system was long ago introduced by some of the leading master tailors of London. In these the conditions of working were of course far better than those to be found at home. But the cubic space per man allotted to each tailor was apparently calculated on the basis that it takes nine tailors to make a man, for in some such proportion were the journeymen cubically huddled together in the workshop. Even now, in some tailoring establishments in London, in the City and West End, as well as in the East End, the journeymen working on the premises are either relegated to a basement, where artificial light is used throughout the entire day, or to some close and ill-ventilated attic or other room, where the cubic space allotted to each man would horrify a Huxley, a Tyndall, or a Roscoe, and where the surroundings are such that health is impaired by the gas and foul air, and still more vitiated by heat and overcrowding. In a comparatively few of the best shops this state of things is minimised, but it is doubtful whether many of them could boast of conditions of breathing space and of work equalling those to be found in a Lancashire cotton factory. The hours of labour are long, and the wages low, in nearly every case. But journeymen in these shops escape some of the unsanitary conditions so prevalent in the "sweating dens" of the East End of London, and they are not subject to the same inconveniences, nor to the same temptations as those who work at home, or in groups of their own selecting. In a workshop, whatever its other

disadvantages, the hours of work are tolerably regular. In the domestic workshop there may be, and frequently are, alternations of idleness and of high pressure, of holidays and long hours, sometimes far into the night towards the latter end of the week, and often on Sundays.

The invention of the sewing machine, and its introduction into the tailoring trade, has had the effect of increasing competition, and of lowering wages in most branches, to an extent scarcely possible in other industries. It has also given an impetus to slop work—the making up of shoddy materials by cheap labour for the ready-made clothing establishments. But it is a mistake to suppose that the sewing machine created the slop shop; it simply gave it a fuller development and a wider field. The slop system had begun, was in fact in full swing, long years before the sewing machine had been perfected. Charles Kingsley, in his preface to "Alton Locke," alludes to "the paltry temptation of buying in the cheapest market" as being "too strong for the labouring man." The slop-shop system was extended in two ways. In one of its earlier significations, the term slop work was used to describe the ready-made clothing supplied to seamen from the ship's stores. Subsequently an enormous export trade of ready-made clothing was developed, until some twenty or twenty-five years ago the articles were found to be so deplorably bad that shippers could find no purchasers in either foreign or colonial markets, and whole cargoes had to be got rid of at the ports at any paltry price they would fetch. The other way in which the system was extended was by supplying cheap ready-made clothing to the workmen and the poor in the home markets. Workmen who clamoured for higher wages patronised the slop shop, and sometimes went direct from such establishments to their trade union lodge and voted money in support of tailors on strike against the system. The paltry temptation of buying in the cheapest market was too strong to be resisted individually; but in the aggregate they helped the tailors by votes of money from their lodge funds.

The "sweating system" did not originate with or evolve out of the introduction of machinery; it is doubtful if it originated even with the slop shop. But each in its way greatly extended the facilities for sweating. A definition of what sweating is must not be attempted; many of the witnesses before the Lords' Committee on Sweating tried their hands at a definition and failed. The Committee itself did not attempt to define it; they rather described the evils of the system, or of a system, and suggested certain remedies. Some have supposed that sweating is only possible under the sub-contract system. Under that system no doubt it expands, and flourishes at its worst; but it can exist, has existed, and does exist

where there is no sub-contracting. It existed in 1849, when the Rev. Charles Kingsley wrote his popular and fascinating novel, "Alton Locke;" and it must have been then of long duration, judging by the perfection it had attained even at that date. But with the division of labour consequent upon the use of the sewing machine, with the increased employment of women, and with the more acute form of competition among the journeymen, the practice extended of taking out larger quantities of work than one pair of hands could do; hence the "sweating den" evolved out of the slop-shop system of manufacture. Something very similar must have been in existence in 1848-49, in so far as the workshop was concerned. Kingsley speaks of a garret, with a low lean-to roof, the air of which was stifling with the odours of human breath and perspiration, with the smell of drink, dirt, and scraps of all kinds, in which sat a dozen haggard, untidy, shoeless men, with a mingled look of care and recklessness, which made one shudder. The picture was reproduced before the Sweating Committee.

Henry Mayhew, in his "London Labour and London Poor," affords us just a glimpse, and but little more, into the garrets of the working tailors. In his comparative table of drunkenness in the different trades of London, he states that only one individual in 43·7, or under 2 per cent of the total, figure in the official police returns as having been guilty of drunkenness; that number was above the average of the more sober class, which was one in every 113·8, or in the proportion of nearly three to one. But those figures are no test of sobriety in any class of workers, or of society generally. Kingsley describes a "sweating den" of his day as a garret in which the workers were held in bondage, badly fed, worse housed, and with scarcely a rag in which to go out. Then, as now, the Jews were the most shameless sweaters, the Irish journeymen then being the readiest victims, whereas now Jews sweat the Jews, especially foreigners, for lack of other gudgeons.

It is extremely difficult to arrive at any satisfactory estimate of the number of persons, males and females, employed in the tailoring trades. Mr. Charles Booth tabulates and classifies about 900 shops in Whitechapel, parts of St. George's in the East, and parts of Mile End Old Town, all inhabited by Jews. Taking the whole of those districts he arrived at the conclusion, from factory inspectors and other sources, that there were 703 shops in Whitechapel, 173 in St. George's in the East, and 139 in Mile End Old Town, or a total of 1,015. Of these 901 were coat and general shops, 97 trouser shops, 10 vest shops, and 7 for juvenile clothing. In other portions of the districts named, and in Stepney, Poplar, Bethnal Green, Shoreditch, and Hackney, classified and unclassified, there were 257 other shops, 65 being for juvenile clothing, 61 for trousers, 57 for coats and

general, and one for vests, making a total of 1,272 shops. The entire district thus covered embraces about a dozen electoral divisions in the East of London.

Classified according to size, or numbers employed, it appears that 21 coat and general shops, and 21 vest, trousers, and juvenile clothing shops, employed on the average 25 workers each and upwards; in 205 coat and general shops, and in 60 vest trousers, and juvenile clothing shops, from 10 to 25 workers were employed; while in the remainder—732 coat and general shops, and 160 vest, trousers, and juvenile clothing shops—the number employed was under 10 workers in each, leaving 73 as unclassified in Shoreditch and Hackney. In round numbers these 1,272 shops would employ about 110,000 workers, of whom about 1,200 would work in shops of 25 workers and upwards, about 5,500 in shops employing from 10 to 25 workers, and perhaps about 103,300 where under 10 persons were employed. These are entirely exclusive of a large number of domestic workshops, many of whom employ, occasionally or continually, outside labour, but which entirely escape the eye of the factory inspector. The shops for the most part situate in the Mile End, Stepney, and Poplar districts, in which the slop trousers and juvenile suits are principally made, may be generally described as sweating shops, according to the evidence of the witnesses before the Sweating Committee of the House of Lords. But it does not follow that the prices paid in all the shops are starvation prices, as compared with the rates paid even in better shops. In some instances the contention was, and is, that the prices paid, considering the quality of the work, would compare favourably with City and West End prices; in other words, that the workers could earn as much at slop work as they could at higher-class work.

The Jewish population engaged in the tailoring trade form a pretty compact community, concentrated within about a square mile in area, consisting of Whitechapel, Mile End, and a portion of St. George's in the East. It does not follow that there are not others in the adjacent districts, but even in the small area described there are some 35,000 or 40,000 Jews of all nationalities crowded together in a mass, all the surroundings denoting a Hebraic population of a diversified kind. The number of persons to the square acre is 227, the highest in the Metropolis. Nearly 1,000 Jewish coat makers alone have been enumerated in this settlement, all of whom employ hands other than members of their own family. Of these about 1·6 per cent employed over 25 hands, 22·3 per cent from 10 to 25 hands, and 76·1 per cent under 10 hands each; in other cases the workers were members of the same family and near relations counting as the family. Of the total about 60 would

make what is termed "best bespoke," about 200 "bespoke and stock," about 460 "stock and common," and about 200 "very common slop work." The divisions above given of the percentages correspond with the factory inspector's estimate pretty closely, for out of 400 shops enumerated it appears that 0·83 per cent employed over 25 hands, 18·78 per cent from 10 to 25, and 80·39 per cent under 10 persons. These, of course, would not include the worst shops, where the factory inspector never enters, and of which he knows next to nothing, except by repute. In these the sweating master works as hard as the sweatees, and shares the same room, in so far as the manufacturing is concerned; and even his earnings sometimes fall to nearly the same low level as those whom he employs, at least the evidence points to such a conclusion.

It appears that piecework is not so general in the Jewish sweating shops as with the English shops, but a "stint," or certain quantity of work, is exacted for the day's wage, whatever that may be. Perhaps the chief reason why piecework is not so general is that the work is very much sub-divided, each worker doing a small portion, according to his or her grade in the workshop. Paid "overtime" is not general, but long hours are the rule—in fact, the system of overtime pre-supposes a regular fixed day; in the lower class of shops the hours are practically indefinite. The following statement represents approximately the four chief grades of work, the earnings of the workers, and, as far as possible, the number of hours worked, although neither the maximum nor the minimum may be absolutely reached in either case. These examples represent four types of Jewish coat workshops, in which, as a rule, not more than ten persons are employed in each, including the "master," sub-contractor, or sweater, by whichever term he may be described.

(a) Best Bespoke.—In this section of the Jewish tailoring trade the small master employs four or five hands. The room is a small one, but space has to be provided for a presser's table and a rather bulky coat machine. The contractor works with the rest, and the whole will turn out perhaps four coats per day. In this class of shop the "baster" may get as much as from 7s. to 9s. per day for 13 or 14 hours' work. The presser the same wage for the same number of hours, or at the rate of from 6d. to 8d. per hour. The machinist will work the same number of hours, and get from 7s. to as much as 10s. per day, or from 6d. to as high as 9d. per hour. The women workers, or tailoresses, making button holes, &c., will work 12 hours, and get, in the best shops, from 4d. to 6d. per hour, or from 4s. to as high as 6s. per day. The above are exceptional rates for exceptionally good workers in the best class of shops, in those denominated the best bespoke branch of trade.

(*b*) *Bespoke and Stock.*—In this section from eight to ten persons may be employed in a single room, in which there is the presser's table and a couple of coat machines. The shop may turn out ten or a dozen coats per day, the contractor being a worker with the rest. The hours of labour are from 13 to 14 per day, under pressure more. The "general tailor," one of whom, if more than one, will be the "master," will earn perhaps from 7s. 6d. to 8s. 6d. per day, while the others will get from 6s. to 6s. 6d. per day, or at rates ranging from 5½d. to 7½d. per hour, according to grade and quality of work. Machinists will get from 5s. per day for plain work, to 7s. or 7s. 6d. per day for best work. The presser may earn from 7s. 6d. to as high as 8s. 6d. per day. A general hand, if a male, may earn 5s. per day, if a female 2s. 6d. per day, the latter working 12 hours. Button-hole working is done by "the piece," and a quick, good hand may earn as much as 3s. 6d. per day. The female workers' wages range from 2½d. to 4d. per hour. "Apprentices," or odd workers, for "felling" linings and sewing on buttons, &c., may get from 10s. to 12s. per week.

(*c*) *Stock and Common Work.*—In this class of shop from eight to ten hands may be employed in one room, in which there will be a presser's table and two or three machines. The output will reach from 15 to as high as 25 coats per day. The contractor will perhaps be the "baster," or first machinist. The hours of labour are from 13 to 14 per day where fixed, but in many cases they are indefinite. Best machinists and "basters" may earn from 6s. to 7s. per day, or 5½d. to 6½d. per hour; plain machinists from 3s. to 4s. per day, or 2d. to 3d. per hour; common "basters" 4s. 6d. to 5s. 6d. per day; pressers 5s. to 6s. 6d. per day, or from 3¾d. to 5d. per hour. Females, general hands, 3s. 6d. per day of 12 hours; fellers 2s. to 2s. 6d. per day of 12 hours; button-hole workers, on piece-work, hours indefinite, from 2s. 6d. to 3s. per day. The above earnings are when the workers are fully employed, the average earnings one week with the other will be much lower.

(*d*) *Common and Slop Work.*—In this section fewer hands are employed in single shops, five or six being perhaps the maximum. In these two machines will be kept going, the output being from 15 to 20 coats per day, the "master" being the "baster," "first machinist," or the "presser." The "first machinist," "presser," or "baster" may earn from 5s. 6d. to 6s. per day of 13 or 14 hours; plain machinists, 2s. 6d. to 3s. per day of indefinite length; general female hands, 1s. 6d. per day of indefinite length; and a feller, "nominal" wages for a day of indefinite length. Button-hole makers may earn 1½d. or 2d. per hour. "Greeners" or learners, and secondary machinists, will get "nominal" wages for indefinite hours. In addition to the low wages and the long hours

in this section, the "workshops" are usually of the worst description, dirty, ill-ventilated, unsanitary in the extreme, and overcrowded, the rooms being usually very small for the number employed, the heat in most cases being almost insupportable. As a companion picture to the above, an example might be given of a large shop, employing about 40 hands, working on similarly common work, but not perhaps of the lowest grade generally, the prices in which vary from 1s. to 3s. per coat. The contractor, in this case, superintends. The fixer's wages will amount to about 7s. 6d. to 8s. 6d. per day; basters from 5s. to 6s. 6d.; machinists from 2s. 6d per day up to 7s. 6d. or 8s. if males, and from 2s. to 4s. if females; apprentices from 6s. to 7s. 6d. per week. Pressers from 3s. 6d. to 8s. per day, males; female general hands, 2s. 6d. to 4s. per day; fellers, 1s. to 2s. per day; button-hole makers, 1s. 6d. to 3s. 6d. per day; and apprentices from 4s. 6d. to 5s. per week, when wages are given, which is usually after four or six weeks' probation. The hours of labour in such shops are from 12 to 14 hours per day, and the workpeople are driven at high pressure speed. In the three other sections *(a) (b)* and *(c)*, the larger masters pay a little higher in many instances, but the earnings are certainly not much higher generally, though the conditions of the workshop may be a little better.

The general average minimum in the "slop coat-making" trade is about 4½d. per hour for men, and 2½d. per hour for women; while the highest average would be 9d. per hour for men, and 6d. per hour for women. The general workers fall below these average minimum and maximum rates respectively. But the trade is a season trade to a considerable extent, therefore the average net earnings throughout the year will be miserably low in all grades. The rates vary with the shop, scarcely two being alike. There is no statement list, no standard rate; but recent movements are tending in the direction of a standard price list, as in the boot and shoe making trade. It appears that there is even a lower fringe in the tailoring trade than that found in the "sweater's den," for it seems that English women take slop coats at 7d. each, the work being done at home; these take the leavings, even of the Jewish sweater. It is alleged that the "middleman," as commonly understood, is now almost totally absent from the tailoring trade. The workers—masters and individual workers—take the work direct from the wholesale clothiers, or the small retail tailors' shops in the Metropolis. It appears, however, that hitherto Government contracts have been let to middlemen, and that these sub-let to small masters, sweaters, and individual workers. Since the condemnation of the system in the Lords' Report on Sweating, the Government are taking steps to stop the practice. It is alleged that

in some firms the foreman or shop-walkers are sweaters, being bribed by the "masters" who take out the work. To what extent this is true it is very difficult to say. At any rate no large sums could pass in this way, as only some 15 masters, out of 900 Jewish coat makers, employed, as a rule, as many as 25 hands. It is stated that the chief cause of the large supply of Jewish small masters is the disdain of the Jew for a mere "hireling's wage;" if he can live by "profit," however small, he is above, in his estimation, the condition of the mere wage-earner. The conditions of industrial life must, perforce, end this false notion of dirty dignity.

The making of trousers, vests, and juvenile suits is mostly done by women and girls, except that, in the best shops, trouser making is done by skilled tailors. In the East of London these skilled tailors usually work at home, and are assisted by their wives and daughters. In the West End, and in City shops, the best work is usually done by men, whether trousers or vests; but there is very little guarantee that either is done by men, except at a few of the very best establishments. In workshops, the pressing is generally done by men, the sewing by women. In the commoner kinds of workshops, the "machining" is done by women and girls, the finishing and pressing by men, the latter often at home. Where women and girls are employed in workshops they come under factory inspection—that is, if the inspector knows of the shop, which is often not possible, though during the last two or three years they have been more on the alert than formerly. In the best shops skilful and quick machinists may earn from 2s. to 3s. per day; finishers from 1s. 6d. to 2s. per day, according to ability. But the gradation is always downward, until the wages reach to not over 1d. per hour, according to the work and aptitude of the worker. For vests the prices vary; some may earn from 1s. 6d. to as high as 2s. 6d. for making the very best, and for the commoner sorts from 5d. to 1s. each, according to the work. It is said that the Jewesses will not take the very lowest class, but that they leave this to Gentile workers. Before marriage the women work in the shops; after marriage they take the work home. In these two branches the average earnings are below the earnings of coat hands in each grade, from the highest to the lowest level. In shops, the girl "learners" start at 2s. 6d. per week, and the pay rises to perhaps a maximum of 10s. per week for the ordinary kinds of work, and to 12s. 6d. or 13s. for the best hands. Button holes are paid for by the piece, at the rate of about 3d. per dozen, and it is said that a quick worker can make as many as 18 button holes in an hour, in which case the earnings, if at 3d. per dozen, would be 4½d.; but the more general number will be 12 in an hour, for 3d. The rates of pay go below 3d. per dozen in many instances.

Juvenile suits form a distinct branch of the tailoring trade. In a few instances this work is done in large workshops, in which all the parts are done and completed on the premises. In many other cases the machining is done in the workshop, the finishing being given out to be done at home. In the larger and better shops, the learners, or workers on probation, get only nominal wages for a couple of months, after which perhaps the best hands will earn from 10s. to 12s. or 14s. per week in the busy season. But few will earn more than 1s. 6d. per day, or 9s. to 10s. 6d. per week. In the second class of shops the actual wages may equal those in the better class, but usually the pay is less. In the majority of cases the work is done by girls and young women in small private houses, where several work at machining, while the finishing is done by married women at their own homes. The demand for home work is such that 80 women called at one shop, in one day, asking for work to be done at home. The slop-work hands in each of the three branches—trousers, vests, and juvenile suits—work long hours, in a bad atmosphere, for very poor pay. The workers are pressed by want; it is the struggle for mere existence; the competition is for bread and shelter; the economical notion of the comforts and conveniences of life is seldom realised by the slop workers in the East End of London.

III.—Cabinet-making Trades.

The cabinet-making trades differ very materially from the two trades previously considered. The latter have recently been tending towards a factory and workshop life, whereas the former have for some years been tending in the contrary direction, although not to the same extent or degree, for cabinet making cannot become a domestic trade in the sense in which shoe making and tailoring have been, and still are. Cabinet making is divided into as many as at least forty-one branches, some of which demand the highest skill, and even taste, in the worker; the other branches also require skill, but it is rather the skill of the carpenter and joiner than that of the artist. The tools of a cabinet maker are in themselves a tax upon the workman; but the division of labour, the use of machinery, and the improved methods of working, no longer demand the large assortment of expensive tools formerly necessary for each workman in a shop. In this trade, also, the "sweater" has been busy in recent years. To a great extent the sweating system has developed out of the degeneration of the trade, so to speak, into a domestic trade. In the factory, or shop system of former days, there might have been "task work"—one form of sweating, perhaps—but the work was done either by the day or

piece, under the immediate supervision of the employer, one of the firm, or a foreman specially qualified for the post. In those days there were high prices, or rates of wages, and low rates, but the "cutting prices" of to-day were unknown.

The modern system of small masters and sweaters must, however, have been long familiar to the trade. In Mayhew's "London Labour and London Poor" we have a description of garret-masters, and the workmen under them. He computed the number of men then in the trade as being about 5,000 to 6,000. Of these he estimated that from 600 to 700 were members of a trade union, whose wages were regulated by custom, more or less enforced by the society; and from 4,000 to 5,000 non-union men, whose earnings were determined by competition. The former were the higher-skilled men in the trade; the latter were less skilled, though the gradations were so fine that it was difficult to see where a line could be drawn between the two classes of workmen. The companion picture of the thrifty union man of that day and the poor competitive slave of the garret-master is as true to-day as then, except, perhaps, that the competitive system has dragged the higher-skilled men down, unless indeed they have escaped the drudgery by becoming small masters, and themselves patronisers of the sweating system. Mr. Mayhew estimated that the rates of payment had decreased in the ratio of from 300 to 400 per cent in a few years, all due to the cutting competitive system which had grown up in the trade. He traces this decline in prices and rates of wages to the enormous growth of garret-masters during the preceding twenty years. In the earlier form they were merely "trade-working masters," working up the materials they could manage to purchase, and then selling the article at the highest price they could get, their necessities usually compelling them to take an extremely low price. Some of these developed into small employers, then called "slaughter-house men," who often purchased from the garret-masters the articles offered for sale almost at their own price. The tendency of this system was to lower prices in proportion to the number of men who hawked for sale the goods they manufactured. These men were often worse off than a journeyman. They could not afford to wait for a purchaser; the article must be sold to buy bread, and also the materials for the next job. Even so early as those times the system of paying by cheque late on Saturday night, and then charging a percentage for cashing it, was common, the same as was recently described before the Sweating Committee of the House of Lords. The conditions of the trade at that date are stated to have been such that it had sunk into utter destitution and misery. Where he could, the garret-master took a number of boys as apprentices, and he worked the whole of his own family, from the wife down to children of tender

age, of six years old. One instance is given of a garret-master who had eleven apprentices. The localities in which these flourished were Spitalfields and Bethnal Green. The area is now extended, but Shoreditch, Hoxton, the two places named, and the adjacent districts still constitute the chief centres of this kind of manufacture, performed under somewhat similar conditions.

The shops to which these articles of the cabinet trade were offered for sale were situate then, as now, in Tottenham Court Road and Oxford Street mainly, but they are now numerous in other parts of the Metropolis. The way in which the workman, in this case the master maker, hawked about tables, skeleton chairs fit for the upholsterer, chests of drawers, chiffonniers, bookcases, and other articles, seem almost incredible, considering the skill and workmanship required for their production. Men who had worked in fairly good shops, at from 30s. to 50s. per week, or even more, found it difficult in some instances to realise from 25s. to 30s. per week, with the help of two or three apprentices. In some cases the man was obliged to sell his articles for less than the value of the materials, so tightly pressed was he for money and food. A "loo table," the materials of which cost from 11s. to 13s., and which required two days' work, would perhaps fetch £1. The price of the articles as sold at the shops would be quite double what was paid for them by the "sweater." The chair making, looking glass and picture frame making, and all other branches of manufacture, were in the same state; as were also the fancy cabinet makers, who manufactured writing desks, work boxes, and small articles of all kinds. Cheap work, scanty materials, slop work of all sorts flooded the London markets, with the result that the men worked for starvation wages, sweated each other, and apprentices, to eke out a living, while the large retail shops flourished and expanded into huge establishments, capable of furnishing a cottage or a mansion upon the shortest notice with shoddy goods, bought of the garret-master at a little over cost price.

In all its main details the cabinet-making trade of to-day is similar to what it was from 40 to 50 years ago, with possibly this difference, that the proportion of tolerably well-paid craftsmen is less than it was at that time. A newer class developed out of the state of things then existing, of wholesale dealers who bought of the small masters and then supplied the furniture shops. "Curtain Road" has long been notorious in this trade for its wholesale establishments. But they have extended to other districts and neighbourhoods—some adjacent, others further away. The localities where the trade is mostly carried on comprise Shoreditch, with 4,328 workers; Bethnal Green, with 4,766; Hackney, with 1,860, of whom 1,300 live within a limited area; and the Tower Hamlets,

covering a rather wider area, with 1,804; the total number being about 12,769. Besides these some 2,200 youths and boys are engaged in the trade, and about 780 females. The total number is estimated at about 15,000 persons, including cabinet makers, wood carvers, gilders, upholsterers, French polishers, wood turners, box makers, and shop fitters. If this estimate be correct, and there is every reason to suppose that it is, the number is only about 730 to 740 more than it was at the census of 1881. But the speed of production is greater, because of the more extensive use of machinery in the preparation of the different woods used by the several handicrafts, and also in portions of the work formerly made by hand. The total number of persons dependent upon the several branches of this trade is estimated at about 36,000. The foregoing figures may only be approximate, but care was taken by Mr. Booth to ensure accuracy in the census taken, and none of the figures have been called in question.

The manufacture of the numerous articles comprised under the term cabinet making is mostly carried on in small houses, in the several localities mentioned, by small masters, many of whom only employ a few youths, in addition to members of their own family. Others employ journeymen to some small extent. For all practical purposes the furniture trades may be described as a domestic industry, carried on in connection with the home. The market for the outlet of those goods is mostly confined to the "Curtain Road," Shoreditch, and its adjacent districts, and portions of Finsbury, but mostly in St. Luke's. In the vast warehouses which have sprung up in these neighbourhoods little is done in the way of manufacture, but some have workshops on the upper floors. Showrooms there are, some of great size, where the furniture dealers can pick and choose according to their needs. The owners of those warehouses and showrooms are middlemen, who supply the City, West End, the suburbs and other districts, and shippers or exporters. They seldom deal directly with the "consumer." From the sources above indicated are produced and manufactured rare and costly furniture, from a richly-inlaid cabinet, which may realise £100, carved oak chairs, that are made to pass as rare pieces of "antique" workmanship, and the gilded furniture of the rich man's drawing-room, to tables that are sold by the maker at 9s. per dozen, cheap bedroom suites, and other articles so plentifully exhibited, at all kinds of prices, in the furniture shops of the Metropolis. The system mostly in vogue is cheap production, by small masters in "domestic" workshops, large distributive establishments or warehouses, and large general retail shops, such as those in Tottenham Court Road.

It has been previously stated that the cabinet trade is divided into numerous branches, over forty being enumerated. Some of these branches require highly-organised skill and deftness in the worker; others are so specialised, by the sub-division of the work, that very little training is required. The result is that many of the workers run, as it were, in a very narrow industrial groove, making continuously and wholly one, two, or three small articles, in the manufacture of which they acquire great speed, and even expertness. Those who may be described as small manufacturers, working almost entirely alone, or assisted only by members of their own family, or a helper, and who occasionally, when trade is brisk and orders are plentiful, may employ a worker or two, are not very numerous compared with the total number engaged in the trade. They usually manufacture such articles as can be easily manufactured by a solitary worker. Some of these solitary workers are excellent workmen, capable of turning out first-class work; these work to order mostly, but are often compelled to work for sale. One such is personally known to the writer, whose talents are of no mean order, whether in design or workmanship. The independent workers of this kind are mostly engaged in the carving, fret-cutting, turning, and similar branches of the trade. Others make common articles, which can be manipulated by one person, and they frequently hawk their own goods for sale. Commencing with a very small capital, sometimes only about £1, they are able to get credit for the wood they require, paying therefor "one week under the other;" but necessity compels them to sell at the week end for almost any sum they can get, rather than return home with the goods unsold. Thus they undersell each other, and often bring down prices throughout the trade for a particular article. Some, by industry, sobriety, pluck, perseverance, and the quality of the goods, succeed in building up a business, but many fail. The latter are far worse off than the mere journeyman in total earnings, and his life is more irregular and harassing in most respects.

The "small masters," as they are termed, rise a step higher. They are the men who have started with a few pounds, and have made a market for their wares. They may employ from two or three to eight or ten persons, all told. They have often started as independent workers in their own homes, or have hired a bench in a workshop. Then a small building has been erected at the back of the small dwelling-house which they occupy, or some additional rooms have been hired in an adjoining house. In some cases workshops have been built to be let off as separate tenements for manufacturing purposes. The total number of separate rooms, or workshops, is estimated at 1,140. In these it is supposed that at least 5,700 work, or about five, on the average, to each room, or

small workshop. The work done in these "shops" vary in quality from the best that can be done in the trade to the lowest in price, and the worst in workmanship and materials, that find their way into the slop shops of London. Specimens could be found where the skill and finish, in the minutest details, could not be surpassed; examples are plentiful where the unseasoned wood is nailed together without mortising or dovetailing, thus realising the ideal of scamping to the utmost limit of human conception. The chief market for the small manufacturer is the nearest centre—Curtain Road and its neighbourhood. It is a large market, also, where goods can nearly always be sold, at a price. Cash is usually paid on delivery, which is a great temptation to sell, even when the price offered can scarcely recoup the maker for the cost of materials and labour, even reckoning the latter at the lowest rate per hour paid to journeymen. Hawking is often resorted to on the Saturday, when perhaps the price offered by the dealer is such that the maker revolts against the proffered cash, notwithstanding, perhaps, his dire necessity. This hawking system has been the bane of the cabinet trade.

The next gradation is the larger workshops, where from 10 or 12 to 20 or 25 men are employed. In this group, it is said that some of the best East End furniture is made. But it is alleged that the tendency in recent years is not towards a superior class of goods, but from a superior down to an inferior article, in consequence of the inordinate demand for cheap furniture, and the increasingly cutting competition in the trade. Against these tendencies many have struggled in vain, and then to save themselves have turned to cheaper and shoddier production. It is stated that in the whole of a large district only about four good firms exist, and in the entire of the East End manufacturing districts only about twenty. Of this total, which include chair makers, only about half a dozen buy original designs; some few others would, however, work to new designs or patterns if sent to them by their customers. The bulk of the trade is made up of repetitions, fresh patterns being merely variations of the ruling practices, or of designs well known in the market. Originality takes time, and requires some capital; neither can be spared in the ordinary shops of furniture trades in which the principal portion of the work is manufactured. Cheapness is everywhere the ruling passion. There are, however, probably about 35 or 40 shops, employing perhaps on an average about 20 men each, in which some special classes of goods are manufactured, such as bedroom suites, drawing-room suites, dining tables, writing desks, with sets of drawers, in most of which tolerably good work is turned out, both for the London market and for the provinces. These specialists are often of the better class, in which artistic talent and

skill enable them to produce really good work, such as may be found in the best West End establishments, and for which high prices are paid by the customers.

From these larger workshops to factories is but a step, metaphorically speaking. The most surprising thing is their fewness. It is well known that only about half a dozen of them exist in which the general work of cabinet making, in all its varying branches, is carried on. In each of these from about 50 to perhaps 200 are employed; elaborate machinery is at work, and a very large output is the result, and that continuously. The articles vary from the cheapest, though not the roughest in make, to the best which the retail market is stocked with. As a rule these firms do not supply the wholesale warehouses, but they may occasionally do so. Tottenham Court Road, and other leading furnishing localities, the provincial towns, and the colonies are supplied by these firms, the export trade being in some cases very extensive. In some of these factories the best wages are paid, the rates varying from 7d per hour to 8d. or 9d. These rates are recognised by the society as standard rates. But some men get as much as 10d., 11d., or even 1s. per hour; these latter rates are, however, exceptional. The average would not exceed 8d. per hour in the better class of East End shops, while the average over the district would perhaps not exceed 6d. per hour, where the men are paid time rates. The maximum weekly wages would perhaps average £2. 5s. in the better-paid shops; from that maximum the average rates would range from £2. 2s. down to 36s., 34s., or 30s. per week. In some cases the average goes down to 25s., 22s., 20s., and as low as 18s. per week, and of helpers to 15s. per week. By the hour, the rates range from 4d. per hour, the minimum, to 1s. per hour the maximum, according to the kind of work in which the men are engaged, and the skill of the workmen. The gradations between these two rates are numerous—in one shop perhaps from 4d. to 5d., 5½d., 6d., 7d., up to 8d. and 9d. per hour.

The rates of wages recognised by the Alliance Cabinet Makers' Society, the best perhaps in the trade, in 1866, was 6d. per hour, the working hours being 60 per week. In the following year the members of the union won an advance of 1d. per hour, making 7d., and the hours were reduced to 58 per week. In 1870, a further advance was obtained of 1½d. per hour, making 8d., the hours of labour being reduced to 55 per week. The working hours remain the same, while the rates have risen from 8d. to 8½d. or 9d. per hour. The deal cabinet makers scarcely reach these rates of wages, the union being weaker, and the skill, generally, scarcely equal to that of the workers in harder woods. A comparison of the London scale of wages with the rates prevailing in provincial towns, under the Amalgamated Union of Cabinet Makers, shows that in numerous

towns the rates in the latter are higher, and the working hours fewer, than in the Metropolis. For example, in Manchester the rate of wages is 35s. per week of 54 hours; in Altrincham, 33s. to 36s. for 54 hours; in Bolton and Bradford, 33s. for 54 hours; Liverpool, 34s.; Southport, 33s.; Sheffield and Rotherham, 35s.; Blackburn, 32s.; while in London and Westminster the rates are given as 40s. 6d. for 54 hours, but these rates only rule in the very *best shops*. In other parts of the country the rates range from 4d. to 6d. per hour, and 7d. to 7½d. per hour; 6d. to 7½d. being the more general rates. Reverting to the London district, the following averages have been obtained: For good all-round cabinet makers, weekly average wages, in 1884, £2. 2s. 1d.; in 1885, £1. 18s. 9d.; in 1886, £1. 16s. 10d.; in 1887, £1. 18s. 3d.; in 1888, £1. 18s.; in 1889, £1. 19s. 4d. The general average would be from £1. 11s. 2d. to about £1. 12s. 6d. If these are the higher averages in good shops, the lower averages would be very much below these rates. When the high skill of the workers is taken into account, the average maximum rates are not as high as might have been expected for such skilled workers.

It might be supposed that men earn a good deal more at "piece rates" by scale, much of the work being paid for on this system of piecework, though scale rates are seldom enforced owing to the keen competition of the workers. In a fairly good class of work—dining-room suites, for example—the rates have been calculated at 8d. per hour, or £1. 17s. 4d. per week of 56 hours, supposing there was no loss of time. But the variations in price make it difficult to give averages on piece rates. The prices are cut down and down, and if the worker does not like the price the plan is to "take it or leave it." Even day work is really task work, the men being timed on a job; while piecework is really lump work, so much for the job. If once a man takes a job for a lower sum than the regulation amount previously paid the other workmen must come down to that sum, and when once accepted it is seldom that the old rate is regained. The men have thus to work at high pressure speed to earn the average rates paid for time wages, and often they work longer hours to make up the amount. Therefore, although the recognised working hours are 55 per week, or varying in the best shops from 52 to 55 or 56, according to the work or the district, the working hours extend up to 60 hours per week, and even longer hours in many cases. On some days the work may extend to 14 or even 15 hours in the day; on other days fewer hours will be worked, for the system enables the men to "rest" or "work," as suits their purpose. Often the irregularity in the hours is caused by the system, the men having very little control over the allotted work from day to day. The whole system is baneful in its operation

and practice, alike to the health, the physique, the *morale*, and the material results in the shape of wages. Steady work helps to keep workmen steady; irregular work and hours operate in the contrary direction. This is seen in all trades working under the "piece system."

Taking the cabinet makers all round, it is said that the average wages would be as follows: Exceptionally good men, £2. 7s. 6d. per week; very good all-round men, £2 per week; but of these two classes scarcely 1 per cent would be found in the entire East End trade of London. The average for the ordinarily skilled man, at the better class of work, would be on the average from £1. 12s. to £1. 15s. per week. The average of the less skilled would be from £1 to £1. 5s.; those working under a piece master, 18s. to 20s. per week; and "chaps" and boys from 10s. to 12s. or 15s. per week. In the chair-making branches there are similar variations in prices, in weekly wages and in the averages. The highest average for exceptionally skilled men would amount to £2. 4s.; but the gradations would run down to 12s. per week for the less skilled, or unskilled, on certain portions of the work. Carvers get a somewhat higher scale of pay, the recognised rate being 10d. per hour. But the average wages earned seldom reach above £2. 2s. per week, unless in exceptional instances. The minimum rates seem, however, to be less, as they are seldom paid lower than 7d. per hour, while the maximum, in one or two cases only, reached 1s. per hour. The carvers are fewer in number, and work independently as a rule. The highest average per week, so far as known, is about £2. 18s., running down to £1. 10s. per week. It appears, however, that only about thirty men could be found whose average weekly wages exceeded £2 per week, while the majority average may be set down at about £1. 12s., a minority less. The French polishers work 56 hours per week, the recognised society rate being 7d. per hour. But 6d. or 6½d. is more common than 7d., while for less skilled men, or learners, the rates go down to 4d. and up to 5½d. per hour. The average wages in this branch would seem to be even less than in some others, on account of the employment being more precarious. While 56 hours are given as the normal working hours per week, it appears that they seldom exceed 52; in many cases the average does not exceed 42, as in slack weeks they may only work from 22 to 30 hours. Taking the full working week of 56 hours, the wages would amount to £1. 12s. 8d. per week, at the recognised rate; but the highest average seems to be about 35s. per week, while the general average would scarcely exceed 23s. per week; and the less skilled, or less fortunate, only 21s. per week; improvers and boys, 10s. to 12s. per week of 60 hours' work. The upholsterers get a higher wage than even the carvers, and they work fewer hours.

The society rates are 10d. per hour, the working week 52 hours; but these terms appear only to have been attained in 1886. In the best West End shops, it is said that a first-class hand can earn £4 per week. This, however, would be very exceptional. In the East End the highest average is estimated to be £2. 6s. 6d. per week, or £2. 5s. on an average during the year. A more general average would be from 33s. to 36s. per week for good hands, and 30s. per week in the lower-rate shops. Two estimates give the average as 38s. per week, but the common average would be 33s. or 34s. per week. The society is not strong in numbers, but the men appear to "hang together" fairly well. The total number of members in 1888 was 226, of whom only a few would be found in the East End. The skill required is of a high average, and quickness and dexterity tell in the amount earned. For example, for upholstering a common suite, 11s. or 12s. is paid; if the men stick to their work they can complete three suites in a week, the total earnings being £1. 13s. or £1. 16s. per week. But this amount pre-supposes regularity and application, and no loss of time during the week.

Female labour is not largely employed in the cabinet-making trades, except in the upholstering branch, but some are employed in polishing and gilding, mostly looking glass and pictures frames, and small articles. Among the home-workers, some are also employed in "papering up"—that is, preparing the work for the "French polishers"—and in "gluing" the smaller articles. In upholstering, the men cut out the covers and do the stuffing for the most part, the women confining themselves to the sewing. The weekly wages of female workers vary from 12s. per week to 15s., and in exceptional cases to as much as 20s. per week. Some, who only do the sewing, would earn less than 12s. per week. Female polishers may earn as much as 15s. per week, but the average is much below that sum. It is stated that the number of female workers is increasing, but their earnings are usually only about one-half that of the males.

Jewish labour is increasing in the cabinet trades, though the entire number employed scarcely reach a thousand persons. In the trading portion of the business they have largely increased, Jew furniture dealers being numerous. The Hebrew Cabinet Makers' Association numbers nearly 300 members, and it seems to be growing, and is fairly active in its work. The hours of labour of Jews will about average those of English workers, for, although they work longer hours on four days in the week, they have a short Friday and a short Sunday, and a total rest on Saturday, the Jewish Sabbath. Their wages do not, as a rule, reach the average of skilled English workmen, only a comparative few attaining the standard rates. The "greeners," or learners, work for a term at from 6s. to 8s. per week, rising by degrees to a higher rate when

they become journeymen. The foreign element chiefly consist of foreign Jews, the numbers relatively being from Germany, Poland, Russia, and Italy respectively, in the order of numerical strength, a small proportion not being classified. It does not appear that the numbers are sufficient greatly to influence wages or employment.

The determining elements in the furniture trades which have influenced wages, hours of labour, and other conditions of employment, have been various. The chief factors have been: (1) Excessive competition, resulting from a multiplicity of small masters engaged in domestic manufacture, each of whom have sought to enlarge their trade by lowering prices, until the difference between the actual cost of production, materials and wages, and the prices realised for the articles, left no margin of real profit to the producers. (2) Absence of combination among the workers, or such feebleness of organisation as to render it powerless to uphold a standard rate of wages, commensurate to the skill of the workers and to the nature of the employment. (3) Absence of a regular system of apprenticeships and of technical training, whereby a high standard of workmanship would be ensured, and employment generally would be regulated. (4) The craving after cheap articles by the public, often stimulated by the manufacturers and wholesale and retail houses, to the utter ruin of a skilled industry, which ought to be able to command a high rate of wages and reasonable conditions of work. What are called the "West End cabinet makers" produce superior work, and they command somewhat higher rates; but the cheap productions of the East End come so much into competition with them that wages have been brought down to a low level throughout the Metropolis. There are five societies in London, neither of which have branches at the East End, the total membership of the whole of them not exceeding 700 or 800 members, so that they are quite unable to keep up a high standard rate. During the present year some progress has been made in extending the influence of these societies, but the results have not been great. Self-help and mutual help by associative effort can alone raise this industry to a higher level.

IV.—Artificial Flower Making.

This branch of industry has also a tendency to aggregate in "centres," like nearly every other trade. The chief centres in London are De Beauvoir Town and Hoxton in the North-east, tending towards the East; but a good deal of such work is also done in Clerkenwell, and in the better shops of the West End of London. Artificial flower making is a season trade, and is extremely irregular even in the season. It also fluctuates a good

deal in consequence of changes in fashion, the alternations often being between ribbons, beads, and flowers, but the latter, recently, have held their own. Formerly all the better class of artificial flowers were imported from France; now English-made flowers fairly compete with French flowers, so greatly has the taste and skill of our workers increased. As in all branches of trade in which women workers are the main body, the earnings vary greatly. In some cases very good wages can be earned by the higher-skilled hands; in other cases the earnings are very poor, considering the skill and taste required even in the ordinary class of workers. Much of the work is done at home. Good rose-hands can earn as much as 20s. per week when in full work, and very skilled mounters often earn 18s. per week. But these are exceptions. In the factories or workshops good workers can earn from 10s. to 16s. per week, but in the majority of instances the rates seldom exceed 8s. or 10s. per week, and even with these the work is not constant, but variable. Doubtless many of the workers turn to some other branch between the seasons, or when change of fashion slackens off the demand; in any case, the average earnings of "artificial florists" are not very high, even at the best.

The shops in which the industry is carried on vary in size according to the numbers employed, the latter ranging from about a dozen up to 200 in one shop. All such shops or workrooms, as far as known, are under the Factory and Workshops Acts, and are consequently under inspection. In these the general conditions are, of course, fairly good; they must, indeed, conform to the provisions of the Acts. But, if one might judge by the advertisements for hands and workers when trade is busy, the artificial flower makers reside in all parts of London, and doubtless a good deal of the commoner and cheaper kinds are manufactured in smaller domestic workshops, where no inspector visits, and where a few only work together at the trade. Although it is what is known as a season trade, and subject to the caprice of fashion, great numbers are kept employed all the year round, although not always at full time or at constant work. When fully employed the following rates appear to be about the average earnings of the workers: Learners, first year 3s. to 6s. per week; second year, from 6s. to 8s. per week; third year, 8s., 9s., or 10s. per week; fourth year, 10s. to 12s. per week; afterwards, according to skill and industry, from 15s. to as high as 20s. per week, at full work. It is obvious that there will be many variations in actual earnings between the minimum of 6s. per week at the end of the first year, and the maximum of 20s. per week for a skilled hand after four years' work; it is equally obvious that, inasmuch as these figures represent full employment, the actual average all the year round will be less than the quoted rates in

each case respectively. Generally the workers in artificial flower making are of a rather superior class of girls and women, in many instances the skill and taste being the outcome of a higher education and training than falls to the lot of ordinary work girls in the workshops of London. The very nature of the occupation tends to refinement, and it operates in some degree upon the life and conduct of those employed in the business.

The four typical London industries here dealt with have much in common, though they differ greatly in very many particulars. The one feature which is common to all, or has been up to date, is that the manufacture has been largely carried on as a domestic industry. Some social innovators, recognising the evils which have grown up in connection with such a mode of manufacture, have declared in favour of legal enactment for putting an end to home industries. In this the writer cannot concur. But if the workers, following the example of the boot and shoe makers, can, by mutual arrangement amongst themselves, and with employers, convert the system of home manufacture into one which will come within the lines of factory and workshop life, the change will in the long run be beneficial to all. The conditions of modern home life, in large cities and towns especially, will not permit of the home being at once the dwelling-house and the workshop. But the changes must be effected gradually, and by mutual consent. Legislative enactment would either aggravate the evils or create others equally mischievous in their place. The action of the manufacturers and workers in the boot and shoe industry will influence other trades in the same direction, in proportion as the change succeeds. At the same time there is one accompanying change in the movement now generally taking place, namely, the concentration of all kinds of trade in few hands. For this the workpeople must be prepared. The employers are no more to blame for the present system than the workpeople. Some of the latter, even now, resent the action of their leaders. Inconvenience will be felt by both parties for some time, but domestic manufacture as a system is doomed, and all workers thereunder must contemplate its abolition at no distant date—even the poor, solitary shirt maker, whose woes were sung by Thomas Hood in his famous "Song of the Shirt."

SWEATING IN INDIAN FACTORIES AND WORKSHOPS.

BY HOLT S. HALLETT.

1. WHEN reporting, in June, 1889, on the Bill of the Belgian Government for Regulating the Work of Women and Children in Industrial Establishments, the Committee of the Chamber of Representatives stated that three facts have helped to make public opinion alive to the necessity for action in this direction:—

(1) The universal spread of a charitable fellow-feeling for the working classes.

(2) The realisation of the economic truth, that neither the quantity nor the quality of production is necessarily connected with an excessive prolongation of the hours of labour.

(3) The example set by other manufacturing nations for protecting women and children, which prevents any repetition of the cry that Belgian industry is being saddled with restrictions from which the foreigner is exempt.

On the contrary, we have heard it said by foreign manufacturers and workmen that "Belgium alone, amongst the competing nations, maintains the right of forcing cheap production by an abusive use of the labour of women and children."

2. At that time, according to Mr. Gosselin, Her Majesty's representative at Brussels, eleven hours were the average day's labour in the majority of trades in Belgium. It will be seen by Table No. 1, included in paragraph 23, that Belgium does not stand alone in its abusive use of the labour of women and children, but is left far in the background by India, which works children in the textile factories at seven years of age for nine hours a day, and affords no protection to children over the age of twelve, whilst no child is allowed to work in Belgium until it has completed its twelfth year. Every civilised country in the world is at the present time bent on improving its factory legislation. It is surely time that the Government of India recognised such well-known facts, and set about improving its factory legislation and ameliorating the miserable condition of its working classes by passing an Act similar in its main provisions to the English Factory and Workshop Act of 1878, which is the outcome of nearly a century's experience and consideration in Great Britain.

FALLACIOUS ARGUMENT AGAINST THE REDUCTION OF WORK HOURS.

3. The old argument against the reduction of work hours, which has been proved fallacious by actual experience in Belgium, as in every other country in Europe, is still pertinaciously urged upon the Indian Government by inexperienced and ignorant native, and even European, manufacturers in India. Their cry is that they may be left alone to deal with the operatives as they think fit, and they urge that, if the Indian work hours are restricted to the standard ruling in the United Kingdom, it will be utterly impossible for the Indian mills to compete with the mills of Great Britain for the cotton trade of the East.

4. It is simply astonishing to find such a plea gravely brought forward nowadays. It reminds one of the agitation which was constantly carried on by our manufacturers for many years after the "Apprentices Act" was brought forward at the commencement of this century. As a specimen of such exploded argument we may take that of Mr. Mark Philips, who represented Manchester in the House of Commons in 1836. In that year, when the question of reducing the work hours from twelve to ten a day was being mooted, he stated in Parliament that—

> If the hours were reduced the cotton trade would be tenfold worse than it is. If the cost of twist was to be enhanced a direct bonus would be given to the foreigner, the trade would be driven from the country and would take root elsewhere. I am so convinced of the correctness of my views that I wish to state that if a measure were to be passed which would have this effect, I, who am indirectly connected with mill property, would advertise the whole of my property for sale. I would lend my capital to those who have now the management of the mill. I would say, "Take it, and make the best of it you can in countries where there is an open competition;" and I am sure that so employing it, either in France or in Switzerland, the advantages it would produce would be threefold those it does now.

EXCESSIVE WORK HOURS DO NOT IMPLY AN INCREASED OUTPUT.

5. What may be the working period in the day which will be most advantageous both to employers and employed has long been a mooted question, and may even now be said to be unsettled. The question is a highly complex one, particularly in the textile industries where the operatives are subject to both mental and bodily fatigue—mental from the constant strain upon their attention, and bodily from the fact that their work has to be done standing, and the postures necessitated by it are exceptionally tiring and apt to be injurious to the frame. In his evidence before the Select Committee of 1832-33, Dr. Farre said:—

> I think twelve hours' labour is too much for the majority of human beings. If I may state the precise quantity of labour which in my experience tends to give

the longest and most vigorous life, I should take it, even in the adult, at eight hours' active exertion, eight hours' sleep, and eight hours allowed for recreation and meals. Those are the divisions of the day which could procure the most happy and vigorous life, and which would, I think, yield the greatest sum of labour.

6. The fact that excessive hours do not imply a large outturn of work by wearied operatives has been proved up to the hilt before the various factory commissions which have sat in England. Before the Select Committee of 1816, Mr. Robert Owen, of the New Lanark Mills, gave evidence that the reduction of the hours in his mills from 11½ in a day to 10¾ caused no reduction in the product of yarn. In 1844, Mr. Gardner, a cotton spinner at Preston, reduced the time at his mill voluntarily from twelve to eleven hours, and, after twelve months' working at the reduced hours, reported that he had got a better quality of work, and more of it, in the eleven hours than he had previously got in the twelve. In his evidence before the late Commission on Gold and Silver, Mr. J. C. Fielden stated that in less than twelve months after the Factory Act of 1874 shortened the hours in the textile industries from 60 to 56½ a week "there was not the smallest reduction of produce from that shortening, even with the same machinery."

7. Still further proof that excessive hours do not mean a large outturn was given by Mr. Mundella, M.P., in his evidence before the Factory Commission of 1876, where he stated that—

> In Russia a mill working 134 hours a week will not turn out as much product as an English mill with the same number of spindles will turn out in sixty hours.

And, speaking of mills in France and Germany working longer hours than English mills, he said:—

> I have seen a machine working in Nottingham ten hours a day. I have seen the same machine driven the same number of revolutions per minute in France and in Germany—in France working twelve hours a day, and in Germany working eleven hours a day—but it never produced in either of those countries within something like 20 per cent what we produced in Nottingham in ten hours every day.

8. The same rule, that a workman fatigued by overwork and over-strain upon his powers of attention cannot turn out either as much work or as good work in the same number of hours as an operative who has had more time for rest and recreation, applies to India as it applies elsewhere. According to Mr. James Platt, of Oldham, who has visited most of the countries where spinning is going on, the spinners in India, with the single exception of Lancashire operatives, are more deft with their fingers than any other operatives in the world, yet, notwithstanding the fact that spindles spinning 20's yarn run as fast in India as in England, and that about thrice as many operatives are employed in India as are employed in mills of the

same capacity in Lancashire, the outturn per hour of a spindle in India is said to be, ordinarily, one-seventh less than that of the same spindle running at the same speed in a Lancashire mill. This, however, may be partly due to the inferior quality of the cotton used in the Indian factories.

EFFECT OF LONG WORK HOURS.

9. The evil effect of long hours upon women, young persons, and children working in a textile factory is well known in Europe, and must be, at least, as bad in India as elsewhere, particularly when the higher temperature in the mills and the weaker physical development of the natives of India is taken into account. Mr. Arthur Arnold, who was an assistant commissioner during the cotton famine in Lancashire, after visiting the Bombay mills in 1878, reported that—

> Never have I seen such a wretched crowd of working people—the men pale and haggard, the women and children drooping, and grey with cotton dust.

10. Then, take the evidence of Mr. Meade King, one of Her Majesty's Inspectors of Factories, who was lent to the Governor of Bombay, in 1882, to inspect and report upon the Bombay mills. In his report, dated June 24th of that year, he stated that—

> Nothing has impressed me more in the course of my inspection of the Bombay mills than the unhealthy, stunted, and puny appearance of a great number of the children whom I have seen at work, and I find that a similar impression has been made on the minds of professional men who have had the same opportunities that I have of seeing the children, and who are better judges of their condition.

11. The same effect is seen in the mills on the Continent where excessive hours have been worked by the operatives. Take, for instance, Switzerland, where the operatives, from fourteen years of age upwards, work eleven hours a day for five days in the week and ten hours on Saturday. Sir J. C. Lee, in his evidence before the Depression of Trade Commission, pointed out that—

> If you work a man, woman, or boy beyond a certain time, you damage them, and it is so in Switzerland. At the suggestion of the Foreign Office I went through a great many mills in Switzerland, and made a report upon my visit. The creatures that I saw there were the most extraordinary little, deformed people; they looked like the imps in a pantomime more than anything else. They were most dreadful looking creatures, and that was entirely, as it was owned to me by the head of the industry, caused by overwork.

12. The injurious effect of long work hours in textile factories is shown in still further detail in the reports of the various Select Committees which have sat in England to consider the condition of the factory operatives. In his evidence before the Select Committee of 1816, Mr. Robert Owen (formerly of the firm of Robert Owen and partners, of Chorlton Mills, Manchester), after stating that he made

a point of employing no children under ten years of age, and then for only twelve hours, out of which he allowed them one-and-a-quarter hours for meals, said:—

Seventeen years ago (in 1799) a number of individuals, with myself, purchased the New Lanark establishment from the late Mr. Dale, of Glasgow (who had built the mills in 1784). At that period I found there were 500 children who had been taken from poorhouses, chiefly in Edinburgh, and those children were generally from the age of five and six to seven and eight; if he did not take them at those ages he could not obtain them at all. The hours of work at that time were thirteen, inclusive of meal times, and an hour-and-a-half were allowed for meals. I very soon discovered that, although the children were extremely well fed, well clothed, well lodged, and very great care taken of them when out of the mills, their growth and their minds were materially injured by being employed at those ages within the cotton mills for eleven hours-and-a-half per day. It is true that those children, in consequence of being so well fed and clothed and lodged, looked fresh, and, to a superficial observer, healthy in their countenances, yet their limbs were very generally deformed, their growth was stunted, and, although one of the best schoolmasters upon the old plan was engaged to instruct those children regularly every night, in general they made but very slow progress, even in learning the common alphabet. I adopted regulations to put an end to a system which appeared to me to be so injurious.

13. The Factory Act of 1819, as originally introduced, was intended to apply to all the textile industries, but it was subsequently limited to the cotton manufactories. By this Act no child was allowed to work under nine years of age, and the age for protected persons was from nine to sixteen years, the maximum of their work hours being fixed at twelve, with intervals of half-an-hour for breakfast and one hour for dinner. These hours were known to be, from the evidence which had been given before the Select Committee of 1816, much too long for children and highly injurious to them.

The natural results followed. These have been well portrayed by Mr. Robert Baker, one of Her Majesty's Inspectors of Factories. Before the Factory Commission of 1876, he said:—

I was sub-inspector from the 22nd October, 1834. In 1858 I was promoted to the appointment which I hold at present. I am a member of the Royal College of Surgeons, of London. I was in practice at Leeds, and was in the habit of seeing then, as everybody did, that the factory cripples were, to speak without exaggeration at all, somewhat similar to the sailors in Liverpool in proportion to the population of Liverpool, for they were to be seen in almost every street in the Yorkshire and Lancashire districts. Their legs were bowed where their legs were affected, and where the foot was affected it was as flat, comparatively, as a sheet of paper. Where the spine was affected it was curved either in or out, according to the machinery between which the people had been worked.

14. Before the Select Committee of 1831-32, a great body of medical evidence was given by the chief physicians and surgeons in England against the overworking of children, young persons, and women in the textile industries. Dr. Thomas Young, of Bolton, stated before the Committee that—

The first effects appear to be upon the digestion; the appetite suffers, the digestion is impaired, and consequent emaciation and debility are induced. Scrofulous diseases are common. If predisposition to scrofula existed in the constitution, which might otherwise have remained dormant, the disease is likely to be called into action. Pulmonary complaints—for example, consumption and asthma—are the frequent result of such labour. I have more frequently observed asthma in adults than in children. These pulmonary diseases are clearly traceable to the transition from excessive heat to cold, and the inhalation of dust and cotton-flue. Other effects are convulsions in children; they drop down, apparently exhausted, while engaged at their work, and are affected with fits resembling epilepsy. Pains in the head are often complained of by the children, attributable to the excessive heat and confinement, and cases of typhus fever are common. Owing to ossification not being complete at that early age the bones yield under the weight of the body, and distortion is thus produced. The ligaments are much affected by long standing. Deformity is frequently the result of factory labour. The lower extremities are chiefly affected from the cause that I have stated. Deformity of the foot, swellings in the ankles, and the enlargement of the bones of the ankles and of the knees are incidental to the factory system. Sometimes, without evident disease of the bones at all, the joints are distorted from relaxation of the ligaments; this most frequently happens in the knee, and the patient becomes bow-legged or in-kneed, according as the external or internal lateral ligaments of the joints are affected. Pains in the bones precede actual distortion.

15. It was stated by other witnesses before the Committee that a very unusual number of cases of deformity were found among the operatives, which had come on as late as ten, twelve, fourteen, and sixteen years of age; and Mr. Thomas Sadler, by means of mortuary statistics, proved that as large a percentage of people died in the factory districts before twenty years of age as died elsewhere in England before the age of forty.

FATIGUING NATURE OF FACTORY WORK.

16. Dr. Thomas Young, continuing his evidence, said:—

The employment has been described as light and easy. It cannot be considered a laborious one in itself, or for a short period; but it is one which requires constant attention, it is irksome and fatiguing from its uniformity, the length of time it is followed, and the postures of the body required; it may be rather denominated fatiguing than laborious. To illustrate it let us suppose a female doomed to thread needles as fast as possible, in constant succession and incessantly, for twelve hours a day; to thread a needle is by no means a laborious operation, but the continued and unvaried employment would be irksome and fatiguing in the extreme. It would exhaust the nervous energies by fatiguing the mind as well as the body, and occasions consequently as pernicious effect upon the health, and sometimes more so, than if the labour were more strenuous, and, at the same time, more varied.

17. In referring to factory work having to be done in a standing position, Dr. Samuel Smith, of Leeds, remarked that—

The standing position is still more fatiguing than the walking one. The effort to keep the body in an erect position requires a constant and complicated action of certain muscles, so as to occasion more fatigue than more strenuous exertions. An increased action of the heart is also required when that position is long sustained.

And he gave the following illustration of the effect produced by long standing. He said:—

About twenty years ago I was an officer in a regiment of local militia, and I noticed, within the first two or three days of training, men were constantly fainting before they had been drilled three hours; I was one of them myself who fainted, though at that time extremely strong and healthy.

DOOMING CHILDREN TO SLAVERY.

18. Sir Anthony Carlisle, the principal surgeon of Westminster Hospital, said:—

Children and young persons demand legislative protection for their own sakes, and for the sake of future generations of English labourers, because every succeeding generation will be progressively deteriorated if you do not stop these sins against nature and humanity. I am quite sure that the foundations for debility, decrepitude, and premature death are to be found in these unnatural habits. . . . To doom a child to habitual labour in a factory is to condemn and treat the child as a criminal. It is a punishment which inflicts upon it the ruin of its bodily and moral health, and renders it an inefficient member of the community, both as to itself and its progeny. It is, to my mind, an offence against nature, which, alas, is visited upon the innocent child, instead of its oppressor, by the loss of its health, or the premature destruction of its race. Let the little worn-out creatures have some little time for repose, for domestic enjoyment and instruction, and for the exercise of domestic and kindred affections. One unvarying round of attention is intolerable, and fit to be endured by neither man nor beast.

19. He furthermore gave his opinion that a person of 18 years of age cannot endure so much bodily fatigue, even light work, as a person of 24 to 25, and that working by night is contrary to nature; even beasts of prey only prowled about through the early and late hours of the night, and slept through the major part of it. Night was made for rest and not for work.

COMPARISON OF FACTORY LABOUR WITH SLAVERY.

20. Dr. Farre, who had practiced for many years in the West Indies, stated that no slaves were ever worked there for as long as twelve hours a day; and Mr. Thomas Sadler, when moving the second reading of his Ten Hours Bill before the House of Commons, in 1832, said:—

I appeal, on behalf of these children, to the protection afforded to the slaves of our West Indian colonies. By the Orders in Council, bearing date the 2nd of November last (1831), the labour of the slaves in all the crown colonies of England is regulated as follows: By section 90 of these Orders, no slave, of whatever age, is to be worked in any agricultural or manufacturing labour in the night, but only between six o'clock in the morning and six o'clock in the evening. By section 91, all such slaves are "entitled to an entire intermission and cessation of every description of work and labour from the hour of eight till the hour of nine in the morning, and from the hour of twelve till the hour of two in the afternoon, of each and every day throughout the year." Hence, no slave can be worked more than nine hours in any one day. So much for adult slaves.

But by the succeeding section (92) it is ordered that "no slave under the age of fourteen, or above the age of sixty, shall be compelled or required to engage in, or perform, any agricultural work or manufacturing labour, in any of the said colonies, during more than six hours in the whole in any one day." After referring to many other beneficial regulations contained in the Orders of Council, such as allowing forty holidays annually, exclusive of Sundays, and the prohibition of the labouring of pregnant females, he continued: I can hardly restrain my indignation within due bounds while I appeal to the regulations regarding these slaves, and see that those proposed in favour of British children are so vehemently opposed. . . . You have limited the labour of the robust negro to nine hours; but when I propose that the labour of the young white slave shall not exceed ten, the proposition is deemed extravagant. . . . The gentleman will not ride his hunter before he is full grown, nor does the farmer yoke his yearling foal to the plough, and scourge it forward as many hours, and even more, than the full-grown colt could bear. No! It is the factory child alone that is thus treated.

COMPARISON OF FACTORY LABOUR WITH GAOL LABOUR.

21. Mr. Sadler furthermore pointed out that according to law—

Every prisoner sentenced to hard labour shall, unless prevented by sickness, be employed so many hours per day, NOT EXCEEDING TEN, exclusive of the time allowed for meals, as shall be directed by the rules and regulations to be made under this Act, excepting on Sundays and other holidays. I have examined the whole of these regulations, as established in every prison in England, and I find that the average labour imposed is far short of the limit prescribed by this Bill. Even the convicts at the hulks, I am informed, are only worked in winter from eight o'clock in the morning as long as daylight lasts; and in summer from seven in the morning till six in the evening, but from which time is deducted, in both seasons, about one hour and a half for meals; making, therefore, the duration of their actual labour in summer nine hours and a half, and in winter, perhaps, about two hours less. I ask, then, whether it is right, or even politic, thus to give a premium to crime—to protect guilt and persecute innocence, to work unoffending children longer than the law permits in the case of adult criminals and felons, whose labour constitutes their punishment?

SLAVERY IN INDIAN FACTORIES.

22. The horrors of the factory system in India are fully recognised by such of the mill managers as are European, and have some bowels of compassion. In his speech, delivered on November 28th, 1889, before the Manchester and Salford Trades Council, Mr. J. C. Fielden stated that—

I have had letters from managers of Indian mills, and I wish distinctly to say more particularly from Bombay, who state that having had experience in South America and in the Southern American States, and having seen actual slavery, that such slavery is mild compared with that which exists in the factory system of Bombay, so far as the labour of women and children is concerned. One mill manager, of great experience, wrote me that he had seen children so small, working eighty hours per week, that he had taken them up in his arms, put them in the scale, and found them to weigh from 42lbs. to 45lbs. only.

23. Factory Legislation in India and Europe.

TABLE No. 1

Shows the DAILY WORK HOURS SANCTIONED *for* MALES (M) *and* FEMALES (F) *by the various* FACTORY ACTS *in force in* EUROPE *and in* INDIA *at the* PRESENT TIME *for* PERSONS *who are* PROTECTED *by* LEGISLATION.

The last column shows the hours agreed upon at the Berlin Labour Conference. Blanks indicate absence of protection.

Age of Protected Persons.	India.	Great Britain.	Germany.	Austria.	Hungary.	Belgium.	Denmark.	Spain.	France.	Italy.	Holland.	Sweden.	Switzerland.	Berlin Conference.
years.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.	hours.
7 to 9	9	0	0	0	0	0	0	0	0	0	0	0	0	0
9 to 10	9	0	0	0	0	0	0	0	0	8	0	0	0	0
10 to 12	9	5	0	0	8	0	10	5	0	8	0	0	0	0
12 to 13	..	5 3¼ s.	6	0	8	12	10	5	12 (0)	..	11	6	0	6
13 to 14	..	5 3¼ s.	6	0	8	12	10	5 F. 8 M.	12 (10)	..	11	6	0	6
14 to 15	..	10 6½ s.	10	11	10	12	10	8	12 (10)	..	11	10	11 10 s.	10
15 to 16	..	10 6½ s.	10	11	10	12	10	8 F.	12 (10)	..	11	10	11 10 s.	10
16 to 18	..	10 6½ s.	..	11	..	12 F.	12	8 F.	12 (10)	..	11 F.	10	11 10 s.	?*
18 to 21	..	10 F 6½ s. F.	..	11	..	12 F.	..	..	12 F. (10)	..	11 F.	..	11 10 s.	11 F.
Over 21	..	10 F. 6½ s. F.	..	11	..	12 F.	..	..	12	..	11 F.	..	11 10 s.	11 F.

* To be subsequently settled by State Legislation.

24. In Italy and Spain, according to the Berlin Conference, children between 10 and 12 may be allowed to work 6 hours a day.

The hours in ( ) refer to the hours in the Factory Act before the French Chambers. S. stands for Saturday.

Sunday labour is forbidden by the Berlin Conference, and in Great Britain, Austria, Sweden, Norway, and Switzerland.

In India it is forbidden to children under 12; in Germany to those under 16; in Hungary during divine service; in Belgium to males up to 16, and to females up to 21; in Denmark to children up to 14; in France to males up to 16, and to females up to 21; in Holland to all females, and to males up to 16 years of age.

Night work is prohibited by the Berlin Conference to all females, and to males up to 18; in Great Britain to all females, and to males up to 18; in Germany to all females, and to males up to 16; in Austria to all up to 16; in Belgium to all up to 14; in Denmark to all up to 18; in Spain to males up to 15, and to females up to 18; in France to males up to 16, and females up to 21; in Italy to all up to 12, and children from 12 to 15 are restricted to 6 hours; in Holland to all females, and to males up to 16; in Sweden to all up to 18; and in Switzerland to all females, and to males up to 18. In India no ages are protected from night work.

In the State of New York, in America, no male under the age of 18 and no female under the age of 21 can be employed in any manufacturing establishment for more than 60 hours in each week; and no labour can be exacted from them between 9 p.m. and 6 a.m.

No child under 14 years of age can be employed in any manufacturing establishment, and no children under 16 can be employed who cannot read and write simple sentences in the English language. Inspectors are empowered to demand a certificate of physical fitness from some regular physician, and may prohibit the employment of any minor that cannot obtain such a certificate.

25. *Table No. 2 shows, as far as* TEXTILE FACTORIES *are concerned, the* HOURS PER WEEK WORKED *in* ENGLISH FACTORIES, *the* AVERAGE WEEKLY HOURS WORKED *in* BOMBAY FACTORIES, *and those* AGREED TO *by the* BRITISH DELEGATES *at the* CONFERENCE *at* BERLIN.

The Indian mills and factories run throughout the year from dawn to dusk, an average period of 13 hours 11 minutes, with a brief rest in the middle of the day for cleaning the engines, making the TOTAL WORK HOURS *about* THIRTEEN.

TABLE No. 2.

Textile Factory Workers.	Age.	Great Britain.	Bombay.	Berlin Conference.
	years.	hours.	hours.	hours.
Children	7–10	0	54‖	0
,, ...	10–12	28½*	54‖	0
,, ...	12–14	28½*	91	36*
Young Persons	14–16	56½*	91	60*
,, ,, ...	16–18	56½*	91	?†
Females	over 18	56½*	84	66*
Males	over 18	56½†‡	91	‡

PROMISES OF THE BRITISH GOVERNMENT AT THE BERLIN LABOUR CONFERENCE.

26. A glance at Tables Nos. 1 and 2 shows how greatly improved factory legislation is required in our Indian Empire. In no country mentioned in the tables except India and Italy are children under ten years of age allowed to be employed, and in no other countries are children between twelve and sixteen years of age without legal protection. The Berlin Labour Conference has shown that the number of hours which shall constitute a legal day's work is not only engaging the attention of nearly all labour organisations in the civilised world, but is under the consideration of all civilised governments. Organised labour has for years been loud in its demand for a reduction in the hours of labour, and chiefly through its organisation has attained some measure of success; surely unorganised and, therefore, defenceless labour, like that in India, has still stronger claims for legislative protection.

27. In referring to the English Factory and Workshops Act of 1878, before the late "International Labour Conference at Berlin," Sir John Gorst, the Under Secretary of State for India, and the chief British delegate at the Conference, stated:—

The delegates of Great Britain have agreed to the proposals of the third commission limiting the daily labour of children, young workers, and women; they would even have wished to extend them still further. They are of opinion that the provisions of the Factory and Workshops Act, 1878, satisfy all the wishes of the Conference, although offering some differences in their details. We take the liberty of reminding the Conference that our English Act is the product of nearly a century's experience, and that it is, so to speak, a sort of Treaty between employers and workmen, concluded by the intervention of the

* Night work, Sunday labour, and employment in unhealthy or dangerous occupations prohibited.
† Night work, Sunday labour, and employment in unhealthy or dangerous occupations prohibited to all females. The hours to be fixed by the different Legislatures for young persons between 16 and 18 years of age.
‡ Sunday labour prohibited.
‖ Employment in certain dangerous work prohibited. Four rest days per month.

Government. According to the provisions of this Act, the labour of children, young workers, or women is limited with minute precaution to certain hours fixed in the most detailed manner. The intervals necessary for repose, and the half-holiday on Saturday, are provided in all industries in the following manner: Children do not in any industry work more than 60 hours in a fortnight, and in the textile industries for 56½ hours only. This gives an average of five hours per day for the first, and still less for the others; but it is possible for a child over 13 to acquire before his time the status of a young worker, if he has satisfied the conditions of primary education. Young workers and women only work 60 hours weekly, and in textile industries 56½ hours only. This gives an average of 10 hours per day for the one, and still less for the others. We can pledge ourselves for Great Britain that our Government, faithful to its action in the past, will conform resolutely in the future, if it does not even go beyond them, to the benevolent principles of the Conference.

28. In the face of such a solemn pledge to the nations of Europe from the British Government, it would certainly be, as *The Times* lately said in a leading article, "an absolute disgrace to this country, the acknowledged pioneer of factory legislation in Europe, and in whose footsteps other European Governments are only now beginning to tread, if Indian manufacturers were still suffered to practice barbarities which our representatives at the Conference fancied themselves able to denounce from a position of unassailable security. We must not forget that we are to some extent upon our trial in the matter, for our rivals would not be slow to point to India as an evidence of our insincerity in the adoption of the reforms upon which we have so long prided ourselves."

HISTORY OF FACTORY LEGISLATION IN INDIA.

29. The English Factory Act of 1874, which was enacted the year before the first factory commission sat in Bombay, fixed the weekly work hours of operatives engaged in our textile industries, and provided that intervals amounting each day to two hours on five days in the week, and half-an-hour on Saturdays, should divide the work hours. The weekly work hours were fixed for young persons between the age of 14 and 18, and for women, at 56½; and for children from 12 to 14 years of age, at half-time, or 28¼ hours. It was reasonable to suppose that the provisions contained in this Act, which were subsequently included in the "Factory and Workshops Act of 1878," would form the basis of a Factory Act for India, the necessity for which was at that time being mooted and pressed upon the attention of the English Parliament by Lord Shaftesbury.

30. The first cotton mill in India was commenced in Bombay in the year 1851, and was opened in 1854. By 1874 the mills in the island of Bombay numbered fifteen, and there were four more in

other parts of the Bombay Presidency, and eight in the other provinces of India, making in all twenty-seven. Two years later, in 1876, the Indian mills had increased to forty-seven, twenty-nine of which were in the island of Bombay, and ten more in other parts of the Bombay Presidency. Thirty-nine out of the forty-seven, which had been built or were in course of erection in India in 1875, when the first Bombay Factory Commission was instituted, were situated in the Bombay Presidency; and there was, at that time, strong reason to believe that the mills in that presidency were on the point of rapidly increasing. This belief has not been stultified, for between 1876 and 1890 the cotton mills increased from 47 to 137, the spindles from 1,100,112 to 3,274,196, and the looms from 9,139 to 23,412, as can be seen in

TABLE No. 3.

PROGRESS OF COTTON MILLS IN INDIA.

Years ending 30th June.	Number of Mills.	Number of Spindles.	Number of Looms.	Average No. of Hands employed daily.	Approximate Quantity of Cotton consumed.	
					Cwts.	Bales of 392 lbs.
1854....	1					
1861....	12	338,000	?	?	227,500	65,000
1874....	27	593,000	?	?	399,000	114,000
1876....	47	1,100,112	9,139	?	693,000	198,000
1877....	51	1,244,206	10,385	?	752,500	215,000
1878....	53	1,289,706	10,533	?	787,500	225,000
1879....	56	1,452,794	13,018	42,914	936,547	267,585
1880....	56	1,461,590	13,502	44,410	1,076,708	307,631
1881....	57	1,513,096	13,707	46,430	1,326,461	378,989
1882....	65	1,620,814	14,172	48,467	1,391,467	397,562
1883....	67	1,790,388	15,373	53,476	1,597,946	456,556
1884....	79	2,001,667	16,262	60,387	1,859,777	531,365
1885....	87	2,145,646	16,537	67,186	2,088,621	596,749
1886....	95	2,261,561	17,455	74,383	2,251,214	643,204
1887....	103	2,421,290	18,536	76,942	2,541,966	726,276
1888....	114	2,488,851	19,496	82,379	2,754,437	786,982
1889....	124	2,762,518	21,661	91,598	3,110,289	888,654
1890....	137	3,274,196	23,412	102,721	3,529,617	..

BOMBAY FACTORY COMMISSION OF 1875.

31. The Factory Commission of 1875, which was presided over by Mr. Arbuthnot, the Collector of Bombay, was composed of Dr. Thomas Blaney and four gentlemen—three of whom were natives and one a European—connected with Bombay mills, two as chairmen and two as directors. The witnesses were chiefly owners, superintendents, managers, doctors, and engineers of mills, presses, and

ginning factories. In his annual report of 1879, Dr. Lumsdaine, who had been Sanitary Commissioner of the Bombay Presidency for the past eight years, thus remarks upon the character of the evidence given before the Commission :—

That evidence must be taken *cum grano*, for it was that of selected witnesses examined before their employers ; and everyone knows that when the lower orders of natives are asked for an opinion, they invariably say what they think they are wanted to say.

EPITOME OF THE EVIDENCE ON TEXTILE FACTORIES IN 1875.

32. From the evidence which was taken before the Commission, it is apparent that the operatives in the Bombay spinning and weaving mills—men, women, and children as young as five years of age—were employed, under most unhealthy conditions, from dawn to dusk from year's end to year's end, with an occasional half-holiday and a few whole holidays on the occasion of the chief native festivals ; and that their rest at night was restricted to barely four or five hours, and their rest during the day consisted of some 15 or 20 minutes. It was proved that, owing to the early hour they had to be at the mill, women who had to attend to their household duties had to rise at 3 a.m. to prepare the morning meal, and had likewise to prepare and cook the evening meal after their return from their work. The families thus had to defer their dinner to between 9 and 10 o'clock at night.

OPINIONS OF WITNESSES AS TO THE REQUIRED LEGISLATION.

33. The opinions of the witnesses as to the necessity for legislation for the protection of the operatives may be summed up as follows :—

(1) *Age Limits for the Employment of Children.*—The Health Officer of Bombay and a medical man attending mills considered the age of the children should be from 10 to 14 years. Another doctor attending mills put the minimum age at 8. One manager placed the limits between 10 and 13, another between 7 and 12, and another between 7 and 14. An owner of mills considered children of 8 years were too young for employment in the mills.

(2) *Work Hours for Children.*—The Health Officer and four of the managers placed the limit of work hours for children at 4, 5, or 6 hours, or else at half-time. A manager and a director said they worked children for only 4 hours. An engineer considered the hours were too long for children. A general superintendent of a spinning and weaving company allowed that no operative should be worked in Indian mills for more than 9¼ hours. An owner of mills thought 9 hours' work was sufficient for a child. One medical officer attached to mills said children should not be employed for over 8 hours ; and another was of opinion that no operative should be employed for more than 10 hours.

(3) *Work Hours for Women.*—One manager considered women ought not to be worked more than 8½ hours ; another, 9¼ hours ; another, 10 hours ; two medical attendants on mills, 10 hours ; and the Health Officer declared the hours were too long, and gave his opinion that even men should not work for more than 10 hours in a mill.

(4) *Work Hours for Men.*—A general superintendent considered 9½ hours were sufficient for men to work; a manager said 9½ hours; the Health Officer and one of the medical attendants of the mills, 10 hours; and the other medical attendant, 11 or 12 hours.

(5) *Holidays.*—The opinion amongst the witnesses was practically unanimous that the mills ought to be closed for one day in the week; and that it was necessary for the health of the men, as well as of that of the women and children, that one day's rest after six days' labour should be enforced.

(6) *Ventilation.*—The medical witnesses pointed out that, owing to the mill authorities keeping the windows and doors closed, the ventilation was extremely bad in the mills, and the atmosphere was therefore impure and full of fluff, and seriously affected the health of the operatives. Permanent ventilation was shown to be necessary.

INDIAN COTTON PRESSES IN 1875.

34. The inquiry of the Factory Commission of 1875 into the condition of the operatives employed in the cotton presses and cotton-ginning factories brought to light an even more shocking state of affairs than was found ruling in the spinning and weaving factories. Some idea of the work on the presses was given by Mr. Joseph Sharp, the Engineer of the Apollo Press Company. He said:—

The coolies perspire heavily and profusely, drink much water, and get tired with their work, because they are employed continually for 12 hours per day on work ten times as hard as that of mill operatives. Their working hours should not be more than six. The coolies are allowed no meal hours, and take their meals as they find opportunity. They suffer from the cotton dust. Women and children are employed in picking up waste cotton. The coolies are paid by the bale. Legislation is required for fixing the age when children should be employed, and for protecting machinery. The presses should be closed on Sundays.

35. Mr. David Henderson, the Engineer of the Indian Press Company, said:—

The hours of work are much too long. For the last 10 weeks the press has been working from 5 a.m. to 9 p.m., or 16 hours every day. The work is very heavy and disagreeable. The operatives had had only one holiday between January and June. Presses should be closed by law once a week. There is no other way of doing it. The operatives are not healthy; most of them suffer from asthma. The hours are too long for such heavy work. The work kills the men. They should not be allowed to work longer than 8 hours. An enactment is necessary for the protection of the operatives. How can you expect to make changes without an enactment?

INDIAN COTTON-GINNING FACTORIES IN 1875.

36. A similarly disgraceful state of affairs was found in the ginning factories in the Broach and Surat districts. Mr. Benjamin Robb, manager of Mofussil Company's ginning factories, in the Broach district, gave evidence that—

Legislation is certainly necessary for ginning factories, as some of them work for 20 out of 24 hours, on Sundays as well as week-days; 14 hours should be the

maximum time for adults at the busiest time. No factories should work on Sundays. In the presses, one set of men should not be allowed to work more than 12 hours out of the 24 at the outside.

37. Edalji Nasarwanji, one of the proprietors and managers of two ginning factories, said :—

The children are sitting all that time, with the exception of the hour allowed for meals. When they have to go for necessary purposes, their place is taken either by friends or extra hands; such absence is not allowed often, and beyond five minutes at a time. While the women suckle their infants their husbands work for them. The husbands are not employed in the factories, they bring the infants and relieve their wives for the time they suckle them. Children under 15 should not work in a factory.

38. Mr. Dolabram Utamram, the manager and one of the owners of the ginning factory at Sion, in the Surat district, said :—

His ginning factory works for nearly three months from 6 a.m. to about 11 or 12 p.m., and he allows half-an-hour for rest at noon, and another half-hour at 7 p.m. The ginning factories in the Surat district work during the year from two to four months on the average.

CONCLUSIONS ARRIVED AT BY THE BOMBAY FACTORY COMMISSIONERS OF 1875.

39. From the evidence which was given before the Commission of 1875, it appears that no better case was ever made out in any country to show the urgent necessity for ameliorating the condition of the working classes by legislation, and thus defending them from the rapacity of their employers. Neither justice nor mercy could, however, be expected for the Indian operatives from the Bombay millowners, who were set to judge their case. In the report of the Commission it was stated as follows :—

The following members of the Commission are of opinion that a simple legislative enactment would be beneficial both to the factory owners and operatives :—

Dr. Blaney.

Mr. Arbuthnot, Collector of Bombay, president.

At the same time, the above members are of opinion that the Act should be passed by the Government of India, and applied to the whole of India. To apply such an Act to the City of Bombay, or to the Bombay Presidency only, would be certainly detrimental to their interests.

The following members of the Commission are of opinion that legislation in any shape is not necessary :—

Sir Munguldass Nathoobhoy (late chairman of the Bombay United Spinning and Weaving Company).

Mr. H. Maxwell (director of the Prince of Wales Spinning and Weaving Company).

Mr. Morajee Golcundas (director of Morajee Golcundas Spinning and Weaving Company).

Mr. Dinshaw Manockjee Petit (chairman of the Albert Spinning and Weaving Company).

Should it be eventually decided that an Imperial Act be passed, the members of the Commission are of opinion that the following points should be noted and provided for in the Act:—

1. That the machinery should be protected.

2. That children should not be employed under eight years of age.

3. That children from eight to fourteen years of age should not work more than eight hours daily.

4. That the hours of labour should not exceed twelve per day, which should include one hour of rest, which could be given either at one time or at different times during the day, as found to be most convenient.

5. That all factories should be closed one day in seven, the day of closing being left to be fixed as the owners and operatives may wish. Other holidays in the year may be given at the option of the owners and operatives.

6. That good drinking water should be provided in every factory.

INDIAN GOVERNMENT TAKES THE SIDE OF THE MILLOWNERS.

40. Notwithstanding the enormous weight of evidence on the side of protective legislation for the operatives, the Government of India resolved that the overburdened and spiritless masses should be kept miserable, their bodies crippled, and their lives shortened, so that the clamorous classes might be inordinately pampered. It accordingly took the side of the heartless Bombay millowners; and the question of factory legislation was shelved until it was once more forced prominently upon public attention by the visit of Mr. Arthur Arnold to Bombay, in 1878.

THE REPORT OF THE SANITARY COMMISSIONER OF BOMBAY, IN 1878.

41. After Mr. Arnold's report, and the publicity given to it, it would have been impossible for the Government of India any longer to pose in the eyes of Europe as a civilised government unless something was done in the direction of improving the wretched condition of the Indian operatives. A specious pretence for delay, until the matter should perhaps again be lost sight of, presented itself in the usual policy of the Government of India in such cases of calling for further information and reports. Dr. Lumsdaine, the Sanitary Commissioner of the Bombay Presidency, was accordingly instructed to carefully inspect the factories and to report upon their condition, and as to the protection which should be granted to the operatives.

42. In his letter to the Government of Bombay, dated December, 1878, Dr. Lumsdaine reported that—

(1) Under the direct instructions from His Excellency the Governor, I have visited the 22 cotton mills named in the list herewith forwarded. Others yet remain to be seen, but from those inspected a fair estimate may be formed as to what are the points which demand more prominent attention.

(2) As the Municipal Act can deal with ordinary defects and neglected sanitation, it is unnecessary for me to say more than that there is much that may be improved.

(3) In all the mills there are doors and windows in profusion, but in none of them is there provision for permanent ventilation—permanent as distinguished from that which may be impeded at will—and in my opinion that is the chief want, &c.

(4) The other point which demands notice is the hours of labour—the grounds for reducing them have been stated by the Committee of which Mr. Arbuthnot was president—and I think impartial opinion will say they ought to be reduced. For men, I would suggest 10 hours; for women, and boys from 13 upwards, 9 hours; and for children, 6 hours; and in this time I would give one interval of half-an-hour in the forenoon, and another in the afternoon, so the real working time would be 9, 8, and 5 hours. On purely physical grounds, I would close the mills one day in every seven, &c.

LORD SHAFTESBURY'S PLEA FOR THE PROTECTION OF INDIAN OPERATIVES.

43. The following extracts from the report of Lord Shaftesbury's speech on "Factory Labour in India" are taken from *The Times* of April 5th, 1879:—

House of Lords, Friday, April 4th.

FACTORY LABOUR IN INDIA.

The Earl of Shaftesbury rose to move—

That an humble address be presented to Her Majesty, praying that Her Majesty will be graciously pleased to instruct the Viceroy of India to take into immediate consideration the necessity of passing a law for regulating the labour of women and children in the mills and factories throughout her dominions in India.

The Noble Lord said:—

Nearly half a century has elapsed since I first undertook the question of factory labour in the manufacturing districts in the three kingdoms. I had hoped that my career was now terminated, and that, my arms being stiff and weary, I should not again be compelled to resume weapons to which I have been so long unaccustomed. But the state of things in India, in some departments of industry, has become so cruel and oppressive, and so disgraceful, I must say it, to the character of the Imperial Government, the evidence, moreover, from all quarters is so abundant and so strong, that I resolved once more to appeal for the aid of Parliament to redress the evil that exists and prevent the further extension of it. I have chosen this particular form of motion—first, because the subject is well worthy of such a position; and, secondly, because it will thus obtain a more rigid attention. . . . Now, in 1875, the subject having been often before the Government of Bombay, a commission of inquiry was appointed. About twenty-six witnesses were examined, most of them proprietors, managers,

engineers connected with the mills, or operatives under mill influence. Six were Europeans. The testimony is almost universal that the hours of work are too many, the meal times far too short; that the children perform their work standing, and work as long as the adults in a tremendous temperature, and that they are exposed to fearful accidents, and even to death, by the imperfect sheathing of machinery. Dr. Anderson, house surgeon to the hospital, says, "The number of hours is very oppressive to children and adults, especially to married women." But Mr. Henderson speaks out boldly and states, "The hours are much too long." He is asked, "You do not believe in millowners and pressowners forming an association and protecting the interests of the operatives?" "No," he replies, "they have no consciences." "Do you think the work kills them?" "Yes, it does." One would have thought that enough had been stated to move both the millowners and the Government to a sense of common humanity. Children—female children too, of the tenderest years—are worked 11 or 13 hours a day for seven consecutive days, for the Sunday is rarely observed except for the purpose of cleaning the machinery, in a temperature of from 90 to 95 degrees Fahrenheit, with one interval of fifteen minutes for rest. Women within a month of confinement, and less than that afterwards, are oppressed after the same fashion. Why, my Lords, what more do you require? The whole evidence of 1833 rises up as a witness against them. Creed and colour, latitude and longitude, make no difference in the essential nature of man. No climate can enable infants to do the work of adults or turn suffering women into mere steam engines. But it is not thought enough, and I must go further and adduce more than adequate proof for the necessity of this motion. . . .

Next, hear Mr. Arthur Arnold, who has English as well as Indian experience, having been an Assistant Commissioner in Lancashire at the time of the cotton famine. He visited (September, 1878) several cotton mills in Bombay, and gives one as a sample :—

The hands were leaving the mill for their meagre midday rest of half-an-hour—the only rest they have in the whole of the working day—just as I was entering the counting-house. I had a very good opportunity for observing their *physique*. . . . Never have I seen such a wretched crowd of working people—the men pale and haggard, the women and children drooping, and gray with cotton dust. . . . At the door by my side, when they re-entered the mill, stood the superintendent with a stick in his hand, "just," as he said, "to give a tap to them as comes late, for you must be master of 'em." The time was half-past one, and the little children, some of them not more than seven years old, exhausted with the previous six hours of continuous labour, were again at work in the terrible atmosphere of a Bombay factory for another 3½ hours. But this cruelty—a cruelty from which British children are protected by law—is not the worst to which these Hindoo children are subjected. During a period of seven weeks this factory had been closed only for three days. There is no observance of any regular day of rest, and for 46 out of the 49 days preceding my visit, these children had toiled from 7 a.m. to 5 p.m. at their exhausting labour. . . . On the whole, I cannot conceive a case more clear and simple: the Hindoo children are surely entitled to the same protection afforded to "young persons" in the United Kingdom.

Here follows the evidence—and the valuable evidence, too—of a practical man. He says :—

I paid a visit to a large spinning and weaving mill, where some 2,500 hands are employed. The machinery was enveloped in cotton fluff, and appeared never to have been cleaned for years. Mr. B. informed me that such was the case, as

the mill had never, since he joined some two years ago, had anything but the floors swept. I asked if two or three hours per week could not, to the benefit of the machinery, be set apart for a general cleaning up. "Oh, yes," replied my guide; "but the native proprietors would look upon it as a dead loss of time." Sunday and week-day, rain or sunshine, the continual grind went on without intermission from one year's end to another. Flesh and blood, coal and steam—it is all one to the native millowners! Get as much out of them as you can is their way. . . . What say you, my Lords, to a continuity of toil, in a standing posture, in a poisonous atmosphere, during 13 hours, with 15 minutes of rest? Why, the stoutest man in England, were he made, in such a condition of things, to do nothing during the whole of that time but be erect on his feet and stick pins in a pincussion, would sink under the burden. What say you, then, of children—children of the tenderest years? Why, they become stunted, crippled, deformed, useless. All civilised nations have come to a conclusion that infant labour must be protected—many, indeed, include adult labour within their lines of protection, and go far beyond what we have thought advisable, and even possible, in this country. . . . Are we to be encountered by the old commercial and economical arguments of 1833? Were they not refuted at the time by logic and common sense, and still more strongly afterwards by the universal admission of the mighty social, moral, physical, and financial benefits that arose out of that healthy legislation? . . . . . Of all the classes that toil for a livelihood there is none so helpless, friendless, and subdued as these wretched women. They are doubly slaves—slaves to the millowner and slaves to their husbands, who, disregarding the sufferings of their wives, revel at ease in their hard-won earnings. They have no public opinion on their behalf—no Press, no paid or voluntary agitators. In their distress they lift their eyes to the Imperial Parliament, and shall it be replied, my Lords, that "on the side of their oppressors there was power, but that the oppressed had no comforter?" Heaven forbid such an issue! Forty-six years ago I addressed the House of Commons in a kindred appeal and they heard me; I now turn to your Lordships, and I implore you in the same spirit, for God's sake and in His name, to have mercy on the children.

FACTORY ACT PROMISED BY THE SECRETARY OF STATE FOR INDIA.

44. At the conclusion of his speech, Lord Shaftesbury was assured by Lord Cranbrook, then Secretary of State for India, that—

A Bill had been prepared by the Government of India and circulated through the different provinces, and that opinions had been collected on the subject. He had seen the report of the Governor of Bombay, who commented favourably upon the Bill, and desired that it should become law and be put into operation. The Governor had called attention "to the importance of legislation with respect to women and children, and urges that they should not be employed for more than six hours daily, that they should be more completely protected from accidents, and that special attention should be given to the age at which they are employed." He said (see *The Times* of April 5th, 1879) he agreed with Lord Shaftesbury "that the protection of young persons is a fitting subject for legislative action, and I can assure him that, as far as it lies in my power, it shall be enforced in India. The Indian Government is not at all inclined to do less than the circumstances of the case demand, or to fall short of its duties."

In referring to the original draft of the Bill, he said:—

I am happy to say that the Government of Bombay regards it as one to which it can give its assent. With your Lordships' permission, I will give an outline of that Bill. It provides that the mills shall be open from 6 a.m. to 6 p.m. for six days out of seven. . . . The other main provisions of the Bill are that females shall not work for more than 10 and young persons (between the age of 12 and 16 years) for more than 9 hours a day, allowing in each case one hour for meals. No child under 8 years of age is to work at all. . . . I trust that under these circumstances your Lordships will not think it necessary to address the Crown to enforce legislation on this subject.

45. Lord Northbrook gave his opinion, during the debate, that—

It was most desirable that the same protection should be given to women and children employed in mills in India as was given to those employed in a similar industry in this country.

MEMORIAL FROM THE NATIVE INHABITANTS OF BOMBAY.

46. On the 26th December, 1879, a memorial was forwarded from the native inhabitants of Bombay, through the Local Government, to the Legislative Council of the Viceroy, begging that the hours of the adult operatives might be fixed in the proposed Factory Act at nine hours a day. In the course of the memorial, the petitioners stated that—

Your memorialists are eye-witnesses to the sufferings of the poorer classes, more especially young women and children of tender age, employed in the numerous mills in Bombay. While they rejoice to see the increase in the number of mills and factories in the country, they cannot be blind to the fact that utter disregard is manifested by the millowners to the health and comfort of the multitude of women and young children who are obliged to work from five in the morning to seven in the evening, with but half-an-hour's intermission in the middle of the day. It is a pitiful sight to see these poor people rise at four o'clock in the morning, prepare a scanty breakfast, swallow it down hurriedly, and run, while it is yet dark and dusky, to the mills, which are, in many instances, situated one, two, and, in some instances, three miles from their abodes. Children of very tender age, both male and female, are actually dragged out of their beds very early in the morning at all seasons of the year, and beaten by their relatives to attend to their duty in the mills. It is equally pitiful to see these poor creatures return home very late in the evening. All their marketing is done under cover of the night; and then, later on, the grinding, and then the cooking. It is not before eleven in the night that most of the members of the working classes retire to rest. Their night is turned into day. . . . Your memorialists wish the labours of your Honourable Council God-speed; and shall hail the day with joy, satisfaction, and gratitude, when thousands of the labourers in our Indian mills will enjoy freedom and comforts equal to those which their fellow-labourers in other departments of industry, both in public and private factories, are now enjoying, namely, the shortening of the working hours from fourteen, as at present, to nine per day, with an intermission of at least an hour for meals, rest, &c.; and granting a day of rest once a week, in addition to the usual holidays. This, our prayer, does not exclude the other points which your Honourable Council has in contemplation, and which the Act is designed to embrace.

THE BOMBAY MILLOWNERS' ASSOCIATION.

47. In another memorial, dated 8th October, 1880, they pointed out why the Bombay Millowners' Association was against factory legislation. They stated that—

> The Millowners' Association is an interested body of merchants of this place, most of the members of which are life commission agents, each earning a large income varying from 2,000 rupees to 5,000 rupees a month. Now, this income is entirely dependent on the large number of hours for which the operatives work. In order to gain large incomes these millowners exercise great *zulum* over this poor class of people, of whom no notice is taken; and if they themselves dare to make representations, instant dismissal is the result. They are therefore obliged to keep quiet, and patiently submit to the dictates of their opulent masters, who are at present the sole governors and managers of the mills. It has been repeatedly stated by the millowners, both in their communications with the Government and in their published reports, that there is no necessity for legislating in the matter of factories; but the opinion of the outside public, entertaining disinterested views, is quite the contrary. In a matter of this kind legislation is indispensable for the well-being of the poor people serving in the different factories.

MEMORIAL OF THE BOMBAY MILLOWNERS' ASSOCIATION.

48. On September 6th, 1880, the Millowners' Association met in Bombay to consider a memorial against the Factories Bill, which was then before the Legislative Council of India. The memorial urged that legislative interference of any kind for the protection of the operatives was wholly unnecessary, and would, if imposed, be highly injurious to the Indian cotton industry. They further petitioned that, if an Act was passed, it should only be made applicable to children up to 10 years of age, and stated that—

> The Association believe that nothing would justify so high a limit as 14 years, but, should the age of 12 be fixed as the ultimate proper limit, the Association suggest that it be placed at 10, leaving it to the future to increase it as necessity is shown.

CRITICISM OF THE MEMORIAL BY MR. HECTOR.

49. At the meeting of the Association which was called to consider the memorial, Mr. Hector, a member of the Millowners' Association and of the Bombay Chamber of Commerce, who was then the secretary to a large cotton mill in Bombay, said:—

> I am bound to say there appears to be a strong public feeling that in this matter of factory legislation we are taking up a position which will not bear investigation—that we are dealing with the question in a very selfish and, as regards our interests, not altogether intelligent way. . . . How can we expect either man or machinery to last, overworking them as we do? . . . As to the statement made by some gentlemen who have spoken, that the mill

hands are not kept closely to their work, that, in fact, they are allowed to do their work very much as they like, my observation does not confirm that statement; and the only case in which the labour is intermittent is that of the doffers, and when they are not doffing, which is very seldom, they are made to work either as side boys or piecers, or in sweeping the floors. The work of all the other children is constant. It would be ground for finding grave fault with the heads if the workpeople were allowed to do their work in a slovenly fashion. It would not be creditable to them, and it is not the case. . . . Only one interval of about twenty minutes is allowed for a meal during the whole day. From the time they start in the morning the mills run on till 12 o'clock without stopping. The workmen take their food as best they may beside the machinery while it is working, but you know what sort of atmosphere they will then have to eat in, and I do not call that an opportunity for a meal. Better regulations for meals are very much required. I examined some of our workpeople with regard to this matter. Out of twenty-seven persons examined on that morning, mostly children, only three had had any food before beginning work, and our manager told me that it was not at all an unusual thing for children to work on through the day without food. . . . Take, again, the number of hours worked weekly here and in England. In England the mills work 56 to 56½ hours per week, while in India, just now, we are working 80 hours a week, and in the hot weather we work, or some of us do, 98 hours. Who are handicapped—the Indian mills or the English? This is not a question between us and Manchester, gentlemen, and I should like to see all reference to Manchester left out of the discussion.

50. Further on in his speech, Mr. Hector remarked that—

The committee say that the system of payment by piecework enables the Indian adult to do the work of the day in the leisurely manner that suits him. The argument proves the contrary. Payment by piecework stimulates to exertion, which is a first-rate thing for us; but the effect as regards the operatives is the opposite of what the committee state. In this letter we find the assertion repeated that the Indian operative labours in his own way without strain, differing in this respect from the English workman, who from the moment the factory opens till it closes is lightened with no rest or remission. Contrary to the statement of the committee, the strain is far greater on the Indian than on the English workman in the way we are now working. It is said in this letter that the work is light, particularly so when compared with the toil which the labouring classes in other pursuits have to undergo. But there is no labour so incessant as mill labour. In other employments there is much greater freedom of movement, and the work is done in a purer atmosphere. The hours of daily labour are not correctly stated in the letter. The letter complains of the inferiority of the workers, and no wonder that they are inferior workers, as they are. They would be more efficient if they were better treated. . . . Less women are employed in an Indian mill, but more children are employed in their place, especially for card-room work, the unhealthiest of all; and regulations for the protection of children become, therefore, all the more necessary.

51. In the face of such an exposure of the baselessness of their contentions, the Bombay Millowners' Association sent in their memorial to the Government, and these groundless contentions have been the barrier with which the Government of India has ever since blocked the progress of beneficent factory legislation in India.

52. The Indian Factory Act of 1881.

The following Table shows the WEEKLY WORK HOURS SANCTIONED *for* WOMEN, YOUNG PERSONS, *and* CHILDREN *by the* ENGLISH FACTORY ACT *of 1874, which Act is included in the Factory and Workshops Act of 1878; those* PROPOSED BY DR. WEIR, *the Health Officer of Bombay, in 1875; by the* BOMBAY FACTORY COMMISSION *of 1875; by* DR. LUMSDAINE, *the Sanitary Commissioner of the Bombay Presidency, in 1878; by* LORD CRANBROOK, *the Secretary of State for India, in 1879; the* MEAGRE PROVISION AFFORDED *by the* INDIAN FACTORY ACT *of 1881, and the* HOURS PROPOSED *by the* GOVERNMENT OF BOMBAY *in 1885.*

The work hours and intervals for rest for men in English factories are practically fixed by those of the women and young persons, although not fixed by law.

TABLE No. 4.

	Intervals for Meals and Rest.				Age of Children.	Work Hours for Children.	Age of Young Persons.	Work Hours for Young Persons.	Work Hours for Women.	Work Hours for Men.	Rest Day for Children.	Rest Day for Adults.	Holidays other than Rest Days.
	Children.	Young Persons.	Women.	Men.									
	Hours in day.				Years.	Hours.	Years.	Hours.	Hours.	Hours.	Days.	Days.	Days.
Health Officer, Bombay, 1875....	..	..	..	..	10–14	36	14–18	60	60	60	1 in 7	1 in 7	....
Commission of 1875	1	1	1	1	8–14	48	..	66	66	66	1 in 7	1 in 7	....
Sanitary Commissioner, 1878	1	1	1	1	10–13	30	13–18	48	48	54	1 in 7	1 in 7	....
Secretary of State for India, 1879.	1	1	1	..	8–12	36	12–16	48	54	66	1 in 7	1 in 7	....
Indian Factory Act of 1881.....	1	..	..	..	7–12	54	..	..	..	..	4 a month.	....	....
Bombay Government of 1885	1	..	1	..	9–13	54	..	..	66	..	4 a month.	4 a month.	....
English Factory Act of 1874	2	2	2	2	10–14†	28½	14–18	56½	56½	56½	1 in 7	1 in 7	* Six whole days. 52 half Saturdays.

* An average of 11 holidays other than Sundays and Saturdays are allowed in England. † Ten to 13 if the children have passed the educational test.

53. To render the Act of 1881 utterly useless for the protection even of children up to 12 years of age, no hours were prescribed within which the regulated labour was to be taken. In reference to this important omission, the Factory Commissioners who sat in Bombay in 1884 stated in their report that—

> The only way to enforce the statutory limitation of 9 hours for children's labour not being exceeded is to fix a period of employment for such. It is quite evident that on visiting a mill, say at 6 o'clock in the evening, it would be impossible for an inspector to say with certainty whether a child, then working, had been employed the prescribed 9 hours in the 12 or 13 that the mill had been running. If the law has been hitherto obeyed, such is ascribable more to willingness on the part of the owners and managers than to the effect of supervision. We may, however, conscientiously say that we fear children may have worked full time.

54. The Indian Factory Act of 1881 was, indeed, a cruel mockery and a farce. The most damning clauses in it were those which excluded from protection the cotton pressès and ginning factories which employed less than 100 hands, or worked less than four months in the year; all workshops, as well as indigo factories; and premises situated on, and used solely for, tea or coffee plantations.

SANCTIONING A SYSTEM OF MURDER.

55. The omission of the presses and ginning factories was all the more glaring as the evidence brought before the Factory Commission of 1875 (see paragraphs 34–38) proved that men, women, and children were worked for 16 and 17 hours a day, and that even the men were being killed by the long hours. The presses and ginning factories were, in fact, known to be establishments where the process of slowly murdering the working classes was in full swing for three or four months every year. As the Indian Government has, ever since the Bombay Factory Commission of 1875 exposed the practice of these human slaughter-houses, been fully aware of the facts of the case, and has, up to now, refused protection to the miserable workers who are sweated to death in these establishments, it cannot be denied that it has assented to and directly sanctioned these horrible cruelties, which undermine and ruin the constitutions of the most helpless class of its subjects, and eventually and shortly destroy their lives.

OPINION OF THE BOMBAY GOVERNMENT ON THE FACTORY ACT.

56. The refusal of the Government of India to include in the Indian Factories Act of 1881 the provisions which had been promised by Lord Cranbrook, in 1879, during the debate on Lord Shaftesbury's speech on Indian factories, and to afford protection to the working classes employed in the cotton presses and cotton-ginning factories,

was deeply regretted by the Government of Bombay. In his letter of July 19th, 1882, to the Government of India, the Secretary of the Bombay Government wrote :—

I am to remind the Government of India that this Government have from the first advocated the passing of an effectual though moderate measure, and to express the regret of his Excellency the Governor in Council that, owing to the opposition of the representatives of other parts of India in which steam-power manufacture is comparatively slightly developed, this Government should be precluded from providing against evils which threaten to injure a large portion of the population of the city of Bombay.

ONE HOUR'S INTERVAL INSUFFICIENT FOR DAILY REST.

57. Referring to Table No. 4, in paragraph 52, it will be noticed that there is a strange discrepancy between the time allowed for rest in the English Factory Act and that which has been proposed for Indian factories. This has evidently arisen from the fact that the time required for meals has been solely taken into account in considering factory legislation for India, and that the periods required for bodily and mental rest, particularly in such fatiguing employments as factory labour, have been lost sight of.

58. The protected classes in England, or those whose labour has been regulated by the Factory Acts, are :—

(1) Children between 10 and 14 years.
(2) Young persons between 14 and 18 years.
(3) Women 18 years and upwards.

59. To enforce the law against overwork it was found absolutely necessary not merely to fix a maximum period of labour in the day, but also maximum limits within which such period might be taken. The absence of such a provision rendered the Factory Act of 1848 in England unworkable ; consequently, the present English Factory Act prescribes that the labour of the above protected classes in textile factories must be taken within 6 a.m. and 6 p.m., or within 7 a.m. and 7 p.m. Within these hours children or half-timers must be worked either in morning and afternoon sets or on alternate days, attending school once a day under the former system, and twice a day under the latter, when not employed. Young persons and women must be allowed two hours for meals, and cannot be worked continuously for a spell exceeding 4½ hours without, at least, half-an-hour for a meal. On Saturday they are prohibited from working more than six hours, and on Sunday their employment is forbidden. No express provision exists in the law prescribing, in so many words, the number of hours that may be worked in a day or in a week. The limitation is the result of the provision laying down that the

labour of protected persons may be taken within certain hours, and within these hours a certain time must be allowed for rest and refreshment. According to the English law, therefore, women and young persons cannot be worked more than 56½ hours in the week.

WORKING HOURS IN ENGLISH COTTON FACTORIES.

60. The working hours and periods for rest in English cotton mills and cotton factories are as follows :—

For young persons and women, on five week days—

6 a.m. to 8 a.m.	50 work hours.
8 a.m. to 8-30 a.m., breakfast	
8-30 a.m. to 12-30 p.m.	
12-30 p.m. to 1-30 p.m., dinner	
1-30 p.m. to 5-30 p.m.	

For young persons and women, on Saturdays—

6 a.m. to 8 a.m.	6½ work hours.
8 a.m. to 8-30 a.m., breakfast	
8-30 a.m. to 12-30 p.m.	
12-30 p.m. to 1 p.m., for cleaning machinery	

For children or short timers, first week, for five days—

6 a.m. to 8 a.m.	30 work hours.
8 a.m. to 8-30 a.m., breakfast	
8-30 a.m. to 12-30 p.m.	

For children or short timers, second week—

1-30 p.m. to 5-30 p.m., on five days	26½ work hours.
6 a.m. to 8 a.m., on Saturdays	
8 a.m. to 8-30 a.m., breakfast	
8-30 a.m. to 12-30 p.m.	
12-30 p.m. to 1 p.m., for cleaning machinery	

A REST NECESSARY AFTER EVERY FOUR AND ONE-HALF HOURS' WORK IN A FACTORY.

61. By the above regulation of hours it will be seen that mills in England stop half-an-hour for breakfast and a full hour for dinner, and that in no case do the operatives work for more than 4½ hours without a period of at least half-an-hour for rest and refreshment. These periods of rest are allowed to be absolutely necessary for English operatives by our factory inspectors. As a proof of this I may point out that Mr. Robert Baker, one of Her Majesty's Factory Inspectors, stated before the English Factory Commission of 1876 that—

Physically and medically I disapprove of working from 8 a.m. to 1 p.m. without a break, because it is too long.

62. If such is the case for English operatives, how much more must it be for Indian operatives, who have not half the stamina and strength of their fellow operatives in England?

OPINION OF THE BOMBAY FACTORY COMMISSIONERS OF 1884 ON THE ACT OF 1881.

63. In referring to the Indian Factory Act of 1881, the Commissioners who were appointed to make a fresh inquiry into the condition of the factory operatives in Bombay, in 1884, stated in their report that—

In the Indian Factory Act we are astonished to find that the maximum limits within which regulated labour is to be taken are not prescribed; and we further note that there is no mention of women and young persons whatever. Children only between 7 and 12 years of age are protected, and that most inefficiently. The result of these omissions is that women can be worked as long as men, or from sunrise to sunset—that is, 11½ hours a day, or 80½ hours a week, in the cold weather, and 14 hours a day, or 98 hours a week, in the hot weather; and, if artificial light is used, they may be worked day and night for days consecutively; and that such excessive labour is exacted in the small ginning and press factories of Khándesh is distinctly proved by the evidence before us.

We must add, however, to the credit of the cotton mills in Bombay, that, although we found in some cases low-caste women working on machinery as long as men, the almost invariable rule is to treat women with leniency and consideration, and to give them light hand-work, such as reeling and winding, which admits of their coming later and leaving earlier than the men.

It is a curious fact that while in Lancashire, of 423,000 employed in the cotton factories, 253,000 are females, 138,000 are males, and the rest children, in the Bombay Presidency, of 49,928 operatives in textile factories, 38,159 are adult males, 10,794 are females, and 975 are children (805 boys and 174 girls, according to Mr. Jones). Mr. Jones, the inspector, believes that in time employers will avail themselves more of women's labour in India, but on this point we had not sufficient evidence before us to arrive at a definite conclusion.

FORTY-NINE-FIFTIETHS OF THE OPERATIVES IN COTTON MILLS UNPROTECTED BY THE ACT OF 1881.

64. Nothing could better show what a cruel farce the Act of 1881 was intended to be than the last statement. Children over 12 years of age were all classed as adults, and left without protection; thus the Factory Act of 1881 only applied to about one operative in every fifty-one. Even as late as 1888, when particulars were given of 77,013 hands out of the 82,379 hands then employed in Indian cotton mills, it was found that out of this 77,013 hands 46,606 were men over 16 years of age, 15,057 were women over 16 years of age, 12,403 were young persons of both sexes between 12 and 16, and 2,947 were children under 12 years of age; thus showing that the Factory Act even now applies to less than one operative in every twenty-six, and that more than twenty-five out of every twenty-six operatives are left unprotected to the mercy of the millowners.

FURTHER ACTION OF THE GOVERNMENT OF BOMBAY.

65. Great dissatisfaction was naturally felt by the non-millowning people of Bombay at the cruel farce which had been perpetrated by the Legislative Council of the Viceroy, all the more so after the hopes which had been raised by Lord Cranbrook's promises in the House of Lords, at the time of Lord Shaftesbury's speech on Indian factories in 1879. The Governor of Bombay was so disgusted at the inhuman conduct of the Supreme Government that he applied to the Secretary of State for India for the services of one of Her Majesty's Inspectors of Factories to superintend the Bombay mills for some months, and to report on the working of the Indian Factory Act. Mr. Meade King was accordingly sent out from England.

REPORT OF HER MAJESTY'S INSPECTOR OF FACTORIES.

66. In his report, dated June 24th, 1882, Mr. Meade King, after remarking that the Indian Factory Act contained no provisions for sanitation and for ventilating the mills, dwelt upon the high temperature in many of the rooms, and the amount of dust and fluff that was flying about in the blowing-rooms and carding-rooms. The heat in the weaving and reeling or winding rooms, where sizing machines were placed amongst the other machinery, was very great from the acrid steam arising from the size. Artificial ventilation, by means of flues and exhausting fans, he said, should be maintained in the mills, as the ordinary roof and window ventilation was closed during the rainy season. Some of the cotton used in Bombay was very dusty.

CONDITION OF THE MILL HANDS IN 1882.

67. With reference to the hours of work in the cotton factories, he said :—

> So far as labour is concerned, the Indian Factories Act protects children under 12 years of age only, and a stranger is naturally surprised to find that women and all others over 12 years of age are allowed to work from sunrise to sunset every day in the week, including Sunday. This means in the winter time about 11½ hours, and in the summer nearly 14 hours of daily labour. The machinery is usually stopped for half-an-hour in the middle of the day. True, it is customary to stop work on alternate Sundays for the sake of the machinery, which requires to be cleaned, &c., but the workpeople have to be there to clean it; and the Hindu holidays, about 15 days in the year, are usually observed.
>
> *Treatment of the Children.*
>
> Children have but little idea of time, and are to be seen lying outside the mills sometimes an hour or more before the doors are opened. If any person absents himself from the mill for one day without leave, it is customary in some mills to deduct two days' wages. . . . Being neither "half-timers" nor "full-timers,"

there is nothing to mark their time of commencing or finishing work, nor the intervals to be allowed to them. . . . On taking 12 children out of a mill at six o'clock one evening, and questioning them separately, each one said that he had been in the mill since the machinery was set in motion at about 5-30 a.m. . . . In almost every mill in which children are employed, irregularities with regard to their employment have been observed, and in no single instance have I been able to satisfy myself that the stated intervals for food and rest have been adhered to.

INDIAN OPERATIVES HARDER WORKED THAN ANY OTHERS IN THE WORLD.

68. Continuing his report, Mr. Meade King stated that—

I have endeavoured to ascertain whether factory work is continued for 13 consecutive days without one whole hour's cessation in the daylight in any other country in the world. In every country concerning which I have been able to collect information, women and children are not allowed to work in factories on Sundays. I am told, too, that in the Calcutta mills no work is done on Sundays. . . . Can the factory operatives of Bombay bear this continuous strain without injury either to themselves or those who come after them? Are they stronger, or have they greater powers of endurance than the operative classes of other nations? I think the reverse is the fact. One usually finds in an Indian mill at least three persons assigned to work that would be done by two in an English mill. One woman in Lancashire attends two, three, or sometimes four looms. In Bombay I have generally seen a man to each loom. If the women seen working in the mills are compared with those of the same race and class working outside the mills, a very marked difference in favour of the latter cannot fail to be observed.

UNHEALTHY, STUNTED, AND PUNY MILL CHILDREN.

69. He said:—

Nothing has impressed me more in the course of my inspection of the Bombay mills than the unhealthy, stunted, and puny appearance of a great number of the children whom I have seen at work, and I find that a similar impression has been made on the minds of professional men who have had the same opportunities that I have of seeing the children, and who are better judges of their condition. If certifying surgeons believe them to be of the required age they are obliged to grant certificates, which they frequently do with great reluctance. Two or three have told me how much they regretted, on different occasions, that the Act gave them no power to withhold certificates on account of physical incapacity. When pointing out these pitiable specimens of humanity to managers, I have been told that they came from the country in that state. Very possibly. But, if so, is factory work in a heated and dusty atmosphere a change of condition from which they are likely to derive benefit? Is it not far more likely to confirm their weakness or maladies? . . .

70. NECESSITY FOR IMPROVING THE CONDITION OF THE OPERATIVES.

One naturally asks whether wives and mothers (supposing their constitutions and minds are capable of bearing this continuous work of a monotonous character) have no home or domestic duties that require attention, or whether the young people should not be allowed some time for recreation, or some

opportunity of learning something in addition to the one branch of trade in which they are engaged from day to day. The only answer I ever hear from dissentients is that the workpeople do not want any relaxation, therefore why force it upon them, and needlessly strangle the manufacturing industry still in its infancy.*

71. After allowing that the first part of the answer is possibly true, Mr. Meade King asks—

Whether it does not demonstrate more than anything else the necessity of doing something to improve their condition, to elevate them from the degrading effects of excessive monotonous labour to higher views of their family and industrial life. . . . The English Legislature extended its protection to women and children gradually and steadily, in the face of a powerful opposition, but it cannot now be denied that the Factory Acts have conferred the greatest possible benefit on the operatives, while the employers are realising the advantage to be derived from a superior set of workpeople.

REPORT OF HER MAJESTY'S INSPECTOR ON SMALL MILLS AND FACTORIES IN BOMBAY.

72. In another report, dated July 7th, 1882, referring to the "Proposed Application of the Factories Act to Small Mills and Factories," Mr. Meade King stated :—

Dangerous Machinery and Poisonous Atmosphere.

In two-thirds of these small works visited I have observed dangerous—in some cases most dangerous—machinery, mill-gearing, fly-wheels, &c., without any fencing whatever about them ; and the marvel is that accidents are not of more frequent occurrence than they are. But I am disposed to think that the want of ventilation, and proper means of carrying off injurious dust and gasses generated in a variety of processes carried on in some of these small workshops, is of even more vital importance than the fencing of machinery. Sudden injury to life or limb, caused by machinery, is usually made public at once ; but who shall say how many poor creatures have silently succumbed to the vitiated air in which they have been earning their daily bread, and have carried the secret of their fatal illness with them to their graves?

73. UNFIT FOR HUMAN BEINGS TO WORK IN.

In another place (in Khetvadi), in which several women and children were employed, the dust was so thick that any unaccustomed visitor would feel compelled to hold his handkerchief to his mouth and nose while passing through. I considered this place (in the absence of proper means of ventilation) utterly unfit for human beings to work in. I visited it in consequence of having seen in a newspaper that a poor girl's hand had been caught in some of the machinery, which resulted in her death. In less than a fortnight I visited it again on hearing that one of the proprietors had met with a fatal accident from machinery in his own works. . . .

* It was then 28 years since the first mill had been opened in Bombay. The same arguments are still used by the mill proprietors in India, although 36 years have elapsed since the first mill was opened.

ACCIDENTS DUE TO EXCESSIVE HOURS OF WORK.

74. In the same report, Mr. Meade King says :—

I visited the bone factory in which the fatal accident, reported to the Government by the coroner of Bombay, occurred, and considered the machinery in which the boy was caught fairly well guarded, though other parts of the machinery were not so. . . . I was rather disposed to attribute the cause of the accident to excessive hours of work—fourteen hours, including the whole night.

THE GOVERNMENT OF BOMBAY ENTREATS THE SUPREME GOVERNMENT TO PROTECT THE OPERATIVES.

75. In their letter, dated July 19th, 1882, forwarding Mr. Meade King's reports to the Government of India, the Government of Bombay remarked that—

His Excellency the Governor in Council would strongly support Mr. King's proposals for the amendment of the present Act, which, as these reports show, is of but slight avail to prevent enslaving overwork of the children and young persons employed in Indian mills. The provisions of the Indian Factories Act, as it now stands, are, in the opinion of this Government, plainly insufficient to furnish any adequate and satisfactory remedy for the evils against which the measure was directed; and, in view of the rapid extension of the manufacturing industry in Bombay, it appears highly expedient that the law should be amended and amplified, and greater powers conferred upon Government for the protection of the operatives and the amelioration of the conditions of their work. When the existing Act was under the consideration of the Government of India, His Excellency the Governor pointed out in a minute, of which a copy was forwarded to the Supreme Government in the Legislative Department with this Government letter, Judicial Department No. 6,776, dated 6th October, 1880, the insufficiency, if the overworking of children was to be regarded as an evil, of any enactment which limited to nine hours daily the employment in factories of children.* In soliciting reference to this minute, I am to remind the Government of India that this Government has from the first advocated the passing of an effectual though moderate measure, and to express the regret of His Excellency the Governor in Council that, owing to the opposition of the representatives of other parts of India in which steam-power manufacture is comparatively slightly developed, this Government should be precluded from providing against evils which threaten to injure a large portion of the population of the city of Bombay.

NO AID FOR THE INDIAN OPERATIVES.

76. The Government of India, then under the Marquis of Ripon, who remained Viceroy from 1880 to near the close of 1884, did not choose to stultify itself by amending the Indian Factories Act which it had passed in the previous year. The recognised enslaving overwork of the children and young persons was allowed to continue unchecked by a Government which boasts itself to be civilised, and by a Viceroy who would fain have it believed that his rule was more popular in India than that of any preceding Viceroy.

* The amendment of the Act, which is at present being considered by the Legislative Council, still keeps nine hours as the time to be worked by the factory children.

THE BOMBAY FACTORY COMMISSION OF 1884.

77. On May 23rd, 1884, the Government of Bombay, seeing that no legislation for the benefit of the operatives could be hoped for without bringing additional pressure to bear on the Government of India, appointed commissioners—

To report on the advisability of extending Mr. Meade King's suggestions to textile and other factories, and to consider the whole subject in all its bearings, after hearing the evidence of the Inspector of Factories and other witnesses whom the commissioners might think fit to examine.

The commissioners consisted of the president (Mr. W. B. Mulock, the Collector of Bombay) and the following members :—

1. Dr. Thomas Blaney, a physician who served on the Bombay Factory Commission of 1875.
2. Mr. Soorabjee S. Bengalee, C.I.E., member of the Millowners' Association.
3. Khan Bahadur Muncherjee C. Murzban.
4. Mr. M. N. Banarjee, appointed by the Millowners' Association.
5. Mr. N. B. Jeejeebhoy, appointed by the Millowners' Association.
6. Mr. G. Cotton (of Messrs. Greaves, Cotton, and Co., agents for mills, ginning factories, and cotton presses), appointed by the Bombay Chamber of Commerce.

78. The same farce of setting the wolves to inquire into their own quarrel with the sheep was repeated in the composition of this Commission as had been perpetrated when the Commission of 1875 was appointed. Four out of the six members composing the Commission were members of the Bombay Millowners' Association. How these millowners and mill agents must have smiled at the arcadian simplicity of a Government which could consider for a moment that, for the sake of pure justice and mercy, they—members of the body of capitalists who gained by the oppression of the working classes—would damage their own prospects of gain by proposing such merciful measures as were required for the due protection of sheep against their own fangs! At the very best the proposal of half-measures could be expected from them, and, as we shall see presently, this expectation was not falsified.

79. The twenty-one witnesses chosen for examination before the Commission consisted of—

1. Mr. Jones, Inspector of Bombay Factories.
2. Mr. K. N. Servai, lately Acting Inspector of Factories.
3. Seven mill managers.
4. Three mill agents.
5. Two millowners of several mills.
6. Three jobbers.
7. The chairman of the Mill Hands' Association.
8. A female overseer.
9. Two operatives—one a girl and the other a female reeler—both employed in the same mill as the female overseer.

EVIDENCE ON THE PART OF THE OPERATIVES.

Memorial forwarded by 5,500 Operatives to the President.

80. The following memorial, signed by 5,500 mill operatives, was forwarded on October 15th, 1884, to the president of the Commission :—

On behalf of the operatives employed in the spinning and weaving mills in this city, we have the honour respectively to beg that you will be pleased to lay before the Commission, now sitting to inquire into their condition, the following resolutions adopted unanimously at the public meetings of mill hands held at Parel and Byculla on the 23rd and 26th ultimo respectively :—

(1) That all mill hands be allowed one complete day of rest every Sunday.

(2) That half-an-hour's recess be allowed them at noon every working day.

(3) That work in mills should commence at 6-30 a.m. and cease at sunset.

(4) That payment of wages be made not later than the 15th of the month following that for which they have been earned.

(5) That a workman sustaining serious injury in the course of his work at the mill, which may disable him for a time, should receive full wages until he recovers, and that in case of his being maimed for life, suitable provision be made for his livelihood. . . .

EVIDENCE OF THE CHAIRMAN OF THE MILL HANDS' ASSOCIATION.

81. In his evidence, the chairman of the Mill Hands' Association said he considered the Act of 1881 was inadequate in many respects. It had not fixed the hours for the opening and closing of the mills, nor protected young persons and women, and it had not fixed an interval of rest during the day. The Bombay operatives being paid by the month, instead of by the week as in Bengal, and wages in some cases being kept back till the end of the following month, were forced to borrow money from the marwarees, or native money-lenders, for which they had to pay interest at the rate of from 48 to 96 per cent per annum. The mill hands cannot run away, they can only go from one mill to another. The marwarees lend them money because they cannot leave Bombay. Although adult men were not legislated for in England, they ought to be protected by legislation in India, because the Indian operatives are too weak a class of people to agitate and stand in face of their employers. They were so desirous for legislation for their benefit that if the requests contained in their memorial were granted, and they were protected from this oppression, "when the time of their relief comes they will boil over with joy, and bless the authorities as well as their employers for this good act."

82. He further stated that "the operatives as a class would not object to the reduction of wages resulting from reduced working hours." The muccadums, or overseers, according to him, "have canes like schoolmasters and beat the children;* but when this comes to the knowledge of the mill managers these jobbers are dismissed. (Mr. Jones, the Inspector of Factories, here stated that he had, more than once, seen muccadums with canes, and upon making inquiries he was told they were used only to keep the children in fear, not to beat them.) Sixteen years is the average age of maturity in this country. I most decidedly think young persons of 12 years of age are too young to work full time."

REASONS FOR CLOSING THE MILLS FOR ONE DAY IN SEVEN.

83. He said the mill hands worked 14 hours a day and were constantly falling sick, and were forced then to borrow money to cover their expenses.

By allowing one holiday in the week it will not only bring willingness and fresh energies to the employés, but it will also keep the machinery in proper order and save the health of the operatives, who are the mainspring of the mill industry. Giving them one day a week will also avoid the irregularity in attendance, which is very remarkable at present. For instance, a working hand who is now compelled to take a holiday for himself on account of the continuous strain of work, will very willingly try to be regular to earn his full wages if he was sure of getting one day's rest in a week. The temperature in a mill is so high that a man who is not accustomed to it will not like to stay there more than five or six minutes. The workpeople do suffer from the effects of cotton dust.

84. UNVENTILATED CONDITION OF THE MILLS COMPARED WITH THE OPERATIVES' DWELLINGS.

The temperature in the mills must be higher, and the air more "vitiated," than is the case in their own chawls (huts). By "vitiated" I mean breathing in air, cotton dust, &c. If it is meant by this question that the ventilation in the workpeople's chawls is insufficient (which I admit is the case), it would go to show that there should be better provision for ventilation at the places where these people work and spend most of their time.

THE WRETCHED HOVELS OCCUPIED BY OPERATIVES.

85. Mr. Kursandas Valabdas, the agent of two Bombay mills, gave further evidence as to the workpeople's chawls. He said:—

I think there is more ventilation in mills than in workpeople's chawls. I have no chawls myself. I have been told by one of my workmen that they usually live in a small room, 10ft. by 10ft. About seven or eight persons live in such a room. Cases of this kind are very numerous. I do not think they all sleep in such a room; some sleep in the verandah. They all spend much of their time in these rooms. Only about five persons sleep in such a room; but in the rainy season they all have to sleep inside.

* See also Mr. Arthur Arnold's evidence, paragraph 43.

86. Mr. Dinshaw Manockji Petit, the owner of several large mills, thus described the dwelling-places of his operatives. He said :—

These chawls and huts have no windows, and there is hardly any ventilation when they sleep with closed doors. The plinth (floor-level) is very low, and there is no stone pavement; and, though the place is very damp, they become accustomed to it, and neither the hot weather nor the damp weather makes any effect on them.

ENFORCED ABSENCE DUE TO ILL-HEALTH.

87. Can anything be more absurd than this latter statement. It is dead against experience in every part of the world, and is sufficient to breed a pestilence anywhere. No wonder India is the home of cholera and low fevers when such an unsanitary condition of the dwellings of the working class is allowed to continue. Is it surprising, in face of the unventilated condition of the mills, where the atmosphere is vitiated by the breath and perspiration of crowds of operatives and laden with cotton dust and fluff, and in the face of the close and damp huts where the operatives have to pass their few hours of sleep, that the workpeople are constantly falling ill, and are compelled to give up their work for a time? Yet this compulsory absence from work is pleaded by the millowners, in their memorials to the Indian Government, as a reason why the Indian mills should not be closed for one day in seven, and for not allowing a weekly rest day to the male adults.

GIRLS OF TWELVE YEARS OF AGE WORKING FOURTEEN HOURS A DAY.

88. Maya, a girl working in the throstle department of the Colaba Mill, who said she was 12 years of age, gave the following evidence:

I was married very early; my husband lives at our home up-country. I go to the mill at 5-30 a.m. When the whistle goes I go to the mill; I leave the mill when the men leave. I work all day. We eat our bread twice a day. I simply carry the bobbins; we all do this work. When the bobbins are removed we put them in, and put the thread on.

CHILDREN FROM SEVEN TO TWELVE YEARS OF AGE WORKING AS LONG AS MEN.

89. Mr. Parkington, weaving master of the Morajee Golcundas Mill, said :—

The 9 hours clause prohibiting the children from working more than 9 hours has been found to be completely impracticable, because the children are employed attending to machinery on which adults are also working, and they must be there seeing after their work the whole time the engines are in motion. Should they stop, the work of the adults must stop also.

SUNDAY CLOSING FOR THE MILLS SHOULD BE COMPULSORY.

90. To show how general the opinion was in the Bombay mills that it was necessary for the health of the operatives to enforce Sunday closing, I quote the following from the evidence of Mr. Jones, the Inspector of Factories. He said:—

> I can confidently state that every manager and overlooker I have sounded on the subject—and they have been very many—bewail the want of a day's rest, and have entreated me, for the sake of themselves and their hands, to do all I could to make a stoppage compulsory four days a month.

91. Notwithstanding this very general wish on the part of the managers, overseers, and operatives connected with the mills, the Government, for the sake of the millowners, who are grinding the lives of the people, have omitted to include a clause for the compulsory closing of the mills for four days a month, or for one day each week, in the Amendment of the Factory Act of 1881, which is now being considered before the Legislative Council.

NECESSITY FOR FIXING THE HOURS BETWEEN WHICH WORK MAY BE DONE AND INTERVALS FOR REST.

92. This subject has been treated by me in paragraphs 57–62. In paragraph 59 I showed that the early English Factory Acts had been rendered nugatory by the omission of the provision of a clause fixing the hours between which work might be taken; and I may mention that Mr. Jones, the Inspector of Factories, three of the mill managers, a millowner, a jobber, and the chairman of the Mill Hands' Association, gave their opinion before the Commission of 1884 that the period for work ought to be fixed between 6 a.m. and 6 p.m.

93. Eight of the witnesses examined before the Commission were of opinion that it was absolutely necessary for the health of the men, as well as for the health of the other operatives, that the periods of rest should amount to at least one hour in the whole, and should apply to all operatives. The necessity for intervals of rest aggregating two hours has been treated by me in paragraph 61.

CHILDREN SHOULD BE EMPLOYED AS HALF-TIMERS.

94. Eight of the witnesses, including the Inspector, late Acting Inspector, three mill managers, one millowner, one jobber, and the chairman of the Mill Hands' Association, were of opinion—as were the majority of the witnesses in 1875—that nine hours' work was far too long for children in Indian mills, and that they should not

be employed for more than half-time, the time worked by children between 10 and 14 years of age in England. Their opinion was still further strengthened by that of the Sanitary Commission, which was appointed in 1884 to inquire into the health and condition of the mill operatives in the city of Bombay.

REPORT OF THE BOMBAY SANITARY COMMISSION OF 1884.

95. This Medical Commission was composed of Surgeon-Majors Lyon, Gray, and Waters. In the course of their report they stated that—

> We think it very desirable that the daily working hours of these mills should, both in the interest of the general health of the operatives and with a view of preventing accidents from working in rooms insufficiently lighted, be defined by law; and that, further, in the interest of the general health of the operatives, it should be compulsory to allow certain periods of rest in the day, and a certain fixed number of holidays, say 4, per month. Lastly, we have to state that we are of opinion that the present limit of age for children, 7 to 12, is too low. We think the lower limit should be raised, as in England, to 10. The upper limit, we think, ought also to be raised, say to 14. We have also to say that we have visited several of the minor factories, and that from the result of our visit we are of opinion—
>
> 1. That on account of the danger to life from fires, explosions, accidents from unfenced machinery, &c., every such factory employing machinery, other than machinery worked by hand or animal power, should be placed under supervision.
>
> 2. That on account of the danger to health likely to arise from overcrowding, every factory employing more than a certain number of hands should also be similarly placed under supervision.

96. Notwithstanding the great volume of evidence noted in paragraphs 32, 52, 94, and 95, the Commissioners, who I have before stated consisted largely of members of the Millowners' Association, proposed that children between 9 and 14 years of age should be allowed to work for 9 hours a day, and all males above that age full time.

WORK ON WHICH GIRLS AND WOMEN ARE EMPLOYED IN INDIAN FACTORIES.

97. On the subject of women's labour, Mr. Jones, the Inspector of Factories, stated that—

> Women are occasionally employed in card-rooms in India and many young girls under 15 in the Mofussil. I venture to predict that in the course of a very few years woman's labour will be widely used in weaving and carding. . . . In the Mofussil, a considerable number of women are employed as frame-tenters in the card-rooms. . . . Women working as cotton-pickers work as long as the men. . . . Women, as a rule, in the mills in India are not employed on machinery turned by power, but young girls between 12 and 16 years of age are. Young girls are employed on throstle frames.

TWELVE TO FIFTEEN MINUTES ALLOWED IN THE DAY FOR REST AND MEALS.

98. According to the Inspector, very frequently the time allowed for rest in the day is only 15 to 20 minutes, in some mills only from 12 to 15 minutes.

YOUNG PERSONS SHOULD BE PROTECTED.

99. With reference to young persons, the Commissioners stated that—

> If the age of children be raised in the manner suggested by us, we do not see our way to recommending the creation of the third class of protected labourers—*i.e.*, young persons under 16 years of age—suggested by Mr. Meade King. Sufficient difficulties are now experienced in determining the age of children without adding further complications. Birth registers and certificates are not to be had as guides in India, and the dental development cannot be relied on with certainty.

CRUELTY OF REFUSING PROTECTION TO YOUNG PERSONS.

100. Let us consider the full atrociousness of this recommendation, which could only have been propounded by a Commission formed mainly of people financially connected with the mills. In paragraph 63 we have seen that the Bombay mills run for "98 hours a week in the hot weather, and, if artificial light is used, they may be worked for day and night consecutively." According to a recent Government of India report, a jute mill at Soorah, in Bengal, was working for several weeks in 1888 up to 10 p.m., which would give, assuming it commenced working at 5 a.m., and that half-an-hour was allowed for meal time, 16 working hours during the day, or 112 working hours in the week. Just fancy a child of 12 working such hours! A child of that age in an English mill is only allowed to work 28½ hours a week. Why should a child in an Indian mill on any account, much less for such a paltry and trifling reason as that given by the Commission, be permitted, or rather obliged, to toil for 3½ or may be four times as many hours in the week as a child of a similar age and of a stronger constitution is permitted to work in an English mill? How can it be expected that even an Indian youth from 14 to 18 years of age can work, without injury to his frame and to his health, for double the hours that he would be allowed to toil in a factory in England?

101. In paragraphs 9–15 I have shown the effects of long hours upon our English operatives; that even children of 16 years of age were rendered cripples for life by being allowed to work for 11 and 12 hours a day for five days in the week, and for 9 hours on Saturday; and in paragraph 19 I have shown that "a person of 18 years of age cannot endure so much bodily fatigue, even light work, as a person of 24 to 25." Knowing all this—which the Indian legislators should

have known before they ventured upon legislating for the protection of the factory hands—it does appear to be cruelty of the worst description for the Indian Government to act upon the report of a Commission which was merely the mouthpiece of the Bombay Millowners' Association, and was formed mainly of the oppressors of the operatives, who denied all protection to male children between the ages of 13 and 18. Yet this is what the Indian Government has proposed to do in their Amendment to the Indian Factory Act, which is now being considered by the Legislative Council of the Viceroy.

PROTECTION PROPOSED FOR WOMEN.

102. In their report, the Commissioners state that—

> We are strongly of opinion that some restrictions are necessary on the labour of women, more especially when employed on machinery driven by steam. Here continuous attention and assiduity is called for, and the work must be done like clockwork. The monotonous and unremitting character of the labour, with the necessity for close application to rapidly moving machinery, has been found to tell on the constitutions of women in England, whereas in hand labour, where no steam power is employed, the pressure is not nearly so great. We cannot overlook the facts, either that in England the death rate is higher amongst women employed in textile factories on machinery than amongst female operatives otherwise employed, and the higher mortality amongst the children in factory towns is ascribed to the conditions under which their mothers labour. As recommended by Mr. Meade King, women and children should not be allowed to work before 6 a.m. or after 6 p.m., and in that period they should have an hour's interval for food and rest—either a full hour in the middle of the day, or two half-hours with a convenient spell of work between.

103. As I have pointed out in paragraph 61, no woman, young person, or child is allowed to work for more than 4½ hours at a spell in an English mill without a period of at least half-an-hour for rest, and the intervals of rest must amount to, in all, two hours a day; the same intervals for rest are certainly equally necessary for these classes in Indian mills, and there can be no humane reason whatever why they should be restricted to only one hour, as is proposed by the Amendment to the Indian Act.

REPORT OF THE BOMBAY FACTORY COMMISSION OF 1884 ON MINOR FACTORIES AND WORKSHOPS.

104. In their report, the Commissioners state that—

> In England even domestic employment in dwelling-houses, if any member of the protected classes (child, young person, or woman) is employed in handicraft, is by existing law under regulation and inspection. We, of course, would not go this length in our recommendations, but we are strongly of opinion that all factories—no matter what the number of hands employed—in which steam, water, or other mechanical power is used, should be under regulation, and that

other places or workshops where manual labour is exercised should be brought under the law if ten members of the protected classes are employed therein. We may add that we draw the line at ten, owing to the impossibility, without more inspectors being appointed, of enforcing the law in workshops employing less hands.

105. The projected "Amendment to the Indian Factory Act" denies protection to the operatives employed in factories working less than four months in the year, and to all of the hands engaged in Indian workshops, notwithstanding the fact that nowhere else in the annals of factory legislation but in India does so horrible a tale appear of the merciless treatment of the poor. Referring to the evidence placed before them, the Commission of 1884, formed, let it be remembered, mainly of people connected with the mills, was forced to declare that "it is a sad tale of great want on one side and cruel cupidity on the other, calling louder than anything brought before us for legal interference."

INHUMAN SUGGESTION OF THE COMMISSIONERS.

106. In the face of such a declaration, and of the evidence of 1875 and 1884, the Commission had the barbarity to continue their statement as follows:—

We feel, however, that, even with respect to legal regulation here, we must be moderate in our recommendations, as the result of legislative interference may be to deprive these wretched women of their employment and to their places being supplied by men, or to lower the small pittance—women get 3 annas for working from 4 a.m. to 10 p.m., and men 4 annas for working the same time; for working 24 hours on a stretch they receive 6 and 8 annas respectively—they receive to such a point as would counterbalance the disadvantages attaching to their employment by the Legislature . . . consequently, we recommend that women and children be allowed employment for 16 hours with two hours' rest in temporary factories, such as ginning presses up-country, working for shorter periods than six months in the year.

107. A moment's consideration will show what a thorough sham this plea for sweating women and children really was. It had been shown in evidence laid before the Commission that there were not sufficient people seeking employment to afford a double set of hands. Moreover, it was proved that the husbands of the women and the fathers of the children did not seek employment at the works but lived upon the earnings of the women and children, never entering the factories except to bring the children to be suckled by their mothers. It is highly probable that with reduced work hours the daily wages would have to be raised, as many more hands would be required to turn out the same amount of work, and the increased demand for labourers would tend to an increased rate of wages. Thus the merchants would have to pay more for the ginning and pressing of the cotton, and this extra expenditure would slightly but righteously tend to raise the cost of the cotton to the

manufacturers. To prevent such a rise in price they have no objection to women and children being compelled by their husbands and fathers to slave for the whole of the day, and for half of the night in addition.

WORKING TWELVE DAYS AND NIGHTS AT A STRETCH ON THE COTTON PRESSES.

108. We have seen, in paragraph 57, that working on the cotton presses for 16 hours a day killed the workers. That was in 1875. Nine years later, in 1884, matters had become still worse. Tanu Bapoo, a muccadum, who supplied labourers to some of the cotton presses, stated in his evidence that—

I am still employed at Broach. The season commenced about February and finished in June. There is only one press in this factory. I supply the men to the press. I am a muccadum over them, and supervise and show them their work. I have 26 men for the one press, and finisher. . . . Sometimes the press is not working. The men and women sometimes work for 10 or 12 days and nights at a stretch without rest. This is the case when we receive a telegram from Bombay saying that so many bales must be pressed; we have to do it with the same set of hands.

109. Another witness, Hormusji Khursedji, manager of Messrs. Graham and Company's press in Khamgaum, said:—

The working hours depend on the amount of work to be done. . . . We have worked eight days and eight nights without stopping, and I myself have been ill through working these excessive hours. After working eight days without stopping we were compelled to get another set of hands from Bombay and work with two sets.

DANGEROUS MACHINERY AND UNSKILLED ENGINEERS.

110. An idea of the dangerous condition of these presses, in which the operatives are not protected by legislation, may be had from the evidence of the manager of a press and ginning factory in the Khandesh district. He says:—

In press houses there is no ventilation whatever. I have seen an opener worked in a press house in Surat; it was of no use and the owner sold it. These openers are used in many press houses, but they have proved very dangerous. I had three men killed by one of these openers, and I know of another case where an entire factory was burnt down through their being used. . . . The management of the engines is generally not in competent hands. They are chiefly worked by those who only know how to produce the steam, and who know absolutely nothing about proper level, soundness, the proper fitting of the several parts, steadiness, cleaning of the boilers, &c. . . . I myself know several factories where the person in charge of the engine is quite unfit for his duties. . . . The engines, also, are often worked when out of order, and being under 10-horse power they are never examined by the inspector. The boilers often are not fit for use, and have been rejected by the larger factories. . . . It is my opinion that five-sevenths of these small ginning factories are in a dangerous condition.

KILLING THE WOMEN AND CHILDREN IN COTTON-GINNING FACTORIES.

111. Continuing his evidence, he gave the following description, which I believe is unparalleled in any civilised, or even uncivilised, country outside of India :—

In ordinary seasons—that is, when work is not very pressing—the engine starts between 4 and 5 a.m. and stops at 7, 8, or 9 p.m., without any stoppage during the day. The hands work continuously all these hours, and are relieved by one another for meals. In busy seasons—that is, in March and April—the gins and presses sometimes work both night and day with the same set of hands, with half-an-hour's rest in the evening. The same set continue working day and night for about eight days. When the hands have worked this period, and it is impossible to go on longer, other sets of hands are procured from Bombay if they can be found. In this case the work is distributed between the old and new sets of workers, half working all night and half working all day. . . . When we see that the hands are absolutely tired out we are obliged to get others from Bombay. The hands who work these long hours frequently die. Women are employed in this business.

112. Mr. Drewet, who started many of the ginning factories in Khandesh, gave evidence that—

The women sit on the back of the gins, and have simply to lift up the cotton and push it forward. I have often seen them doing this mechanically three-parts asleep. I have seen a child at the breast sucking one minute and throwing cotton into the machine the next. . . . I think you will find that the women had worked night and day for as long as a week at a stretch. I do not think there is a double set of children anywhere, and they must also have worked day and night. The women would have worked 23 out of the 24 hours. This is in Manmad, Pachora, Chalisgaon, and Dhulia. I could also mention other places. . . . The women really work more than the men; the men shirk their work and the women do not. The gins should not start work before sunrise and should stop work at sunset. Women and children should not be allowed to work more than 10 hours each day. The hands are harder worked in Khandesh than in Bombay; the women are, in fact, treated more like animals than human beings, by their husbands more particularly.

NUMEROUS ACCIDENTS IN THE UNPROTECTED FACTORIES.

113. I will now turn to the minor factories in Bombay, which, like the gins and cotton presses, do not come under the Factory Act of 1881. Mr. Jones, the Inspector of Factories, after inspecting 74 of these small factories, reported, with regard to the fencing of engines, shaftings, and machinery, that 43 of them had their machinery, &c., totally unfenced, 16 were partially fenced, and 12 required no fencing. A great many accidents must have happened in these factories which had not been reported to the police.

SHOCKING STATE OF WOOL AND COTTON CLEANING FACTORIES.

114. The people working in many of these factories must die off like rotten sheep from their unsanitary surroundings. Mr. Jones says :—

From one or two of these factories I have had to beat a hasty retreat owing to the foul smells arising from bad drains under the floors and heaps of rubbish and filth lying in the immediate vicinity. . . . The dust in some of the factories is indescribable. It is impossible to see a man 20 feet off in some mills when in full operation. This is owing, firstly, to the extremely dirty nature of the material they work, and cannot be remedied; secondly, the machines are faulty in their construction, and the covers do not come sufficiently over the cylinders; and, thirdly, the buildings are insufficiently ventilated. In the three wool-cleaning and flour-grinding factories, I am perfectly sure the flour must be contaminated. . . . As a proof of the quantity of dust from the cleaning of wool, I may state that all the people who tend the machines are obliged to wear cloths covering their mouths, nostrils, and ears; and even after taking these precautions they inhale enough dust in the course of a day to choke a person not accustomed to the work. The cotton-cleaning factories are quite as bad as the wool-cleaning factories, as only waste and sweepings are worked up.

115. BONE-CRUSHING FACTORIES.

The bone-crushing places are very dusty, and, where the machinery is confined, must be very injurious to the hands employed. One or two are in open sheds, where there is plenty of ventilation.

116. Mr. Carpenter, Superintendent of the Sassoon Reformatory, who had been employed in connection with the workshops and factories, gave further evidence as to the bone-crushing mills. He said :—

The hands employed are of very low caste; they are all Parwáries; no other caste would do the work. The cog-wheels, with teeth for crushing, are most dangerous. If a man gets his hand into one of these machines it is lost. Women carry the bones to the men, who put them into the machines. The bone dust is filthy and flies about all over the place, and the smell is simply horrible to go near. If they ventilated these places too much they would lose a lot of dust, and they want to keep it, as it is valuable.

117. In these filthy dens the women and children, who pick out the stones, bits of iron, and other extraneous matter which might injure the machines if not removed, and who carry the bones to the men, work the same hours as the latter, and get 3½ annas, or about 4d. a day; the men get 6 annas.

COTTON AND WOOL CLEANING WORKSHOPS.

118. In the factories where the wool is cleaned by hand the women get 2 annas for their day's wage. When there is pressure of work—according to the late officiating Inspector of Factories—

There is often a danger of the women operatives being employed more than 12 hours at a stretch, especially in the wool-cleaning factories. It does happen that the same set of women are sometimes kept on working the greater part of the

night. Wool-cleaning factories are, for the most part, worked by women. These factories work, on an average, five months in the year; sometimes day and night for a month continuously, and at other times are closed for a month together, having no work. Visitors find it impossible to remain in these factories while they are working, on account of the choking dust.

HUMAN SLAUGHTER-HOUSES.

119. Mr. Jones, the Inspector of Factories, reported of some of the workshops, where wool and wheat cleaning is carried on by hand, as follows :—

(1) Narseekhao Factory, Duncan Road. Room, 87 feet by 15 feet by 13½ feet. Five small openings, 3 feet by 2 feet, blocked with wood, and two doors; 104 women and children employed in this room, 11 children under 12 years of age, and 3 at the breast. Room extremely dirty.

(2) Room on the opposite side of the road, belonging to the same man. Room, 84 feet by 9 feet by 10½ feet; 7 windows and 3 doors; walls and roof very dirty; 92 women and 16 children under 12 years of age, 3 at the breast.

(3) Bonji Fackenchand, Pinjipore, First Lane. Plenty of ventilation, walls and ceiling very dirty, and dreadful smell from adjoining yard; 90 women and 16 children, from 2 to 12 years of age, employed.

(4) Nursseewanji Moorji's wheat-cleaning place in Duncan Road. All the windows blocked by bags; room perfectly dark, except at the doorway; place excessively dirty; filthy drain running between the building and the next premises. I was obliged to hold my handkerchief to my face while taking down these particulars.

120. In the same report, Mr. Jones says :—

I think it very desirable if the Government could see their way to include in the Act the large workshops where wool and corn cleaning is done by hand, simply for the reason that these places are choked with dust, and the women employed take their young children with them and keep them there the whole day.

121. If the ill-ventilated mills where each individual enjoys about 2,500 cubic feet of air are considered unhealthy owing to want of efficient ventilation, what pest-holes these workshops must be where all chance of ventilation is choked up, and each person has, as in (1), barely 170 cubic feet to breathe in, or, as in (2), about 63 cubic feet. The Black Hole in Calcutta could not have been worse than these dens, in which babies have to sprawl about, and children from two years of age upwards have to work the live-long day. Yet the Government has purposely excluded these pest-holes from the projected Amendment to the Indian Factory Act.

FILTHY CONDITION OF THE WORKING DENS.

122. Mr. T. Anderson, Acting Machinery Inspector at the Dockyard, in his evidence, stated :—

I have examined six or seven of these smaller factories, employing less than 100 hands. . . . Women are employed in some of these factories from daylight until dark. I have seen women work after dark by artificial light. I have never seen children under 12 years of age employed at night. I know one place where I saw more than 100 women employed in a workshop which would

not be included in the definition of a factory. It is a place where they make country twine. They are paid piecework. Every one of the women employed here had one or two little children lying beside them on the ground—little children at the breast. I inquired into this, and was told that these women just came to make two or three annas to support themselves and their children. The sanitary condition of this place was bad, the children having made the ground all dirty. I think that men should only be allowed to work 12 hours a day and women only 10 hours. . . . I think that with the present long hours the men get worn out.

123. WORKING MEN TO DEATH IN THE GOVERNMENT DOCKYARD.

We work the Government Dockyard from 8 a.m. to 5 p.m. In past years we have worked overtime, but we only do so now in cases of great emergency. At present our longest hours are from 8 a.m. to 5 p.m. I have myself known of men employed in the Government Dockyard working these hours utterly break down. I have known natives working under European supervision who were worn out in a very few years by being kept at work as hard as a European would work himself. The natives cannot stand this, and break down and die. In the mechanics' shops attached to the mills the men have to work very hard. In this kind of work three hands are not employed in India where one hand would be employed in England. The mill work is not so fatiguing to the muscles as mechanics' work, but it is very hard for all that.

REASONS FOR PROTECTING INDIAN WORKMEN.

124. In their report, the Bombay Factory Commissioners of 1884 plead that—

Male adults have always been considered to be outside the principle of protection by factory law. They are supposed to be able to take care of themselves; and experience has clearly shown in England that they have done so, and managed to diminish their hours of work more than any Act of Parliament could have done, and the result is that in those industries in which men form the majority of hands employed instances of overwork are unknown.

In paragraph 81* we have seen, from the evidence of the chairman of the Bombay Mill Hands' Association, that the Indian operatives are too weak a class of people to stand up in the face of their employers. As well might one expect one of the poor half-starved and wholly miserable workers in a sweater's den in England to stand up against his sweater. The reason is the same in both cases —there are more hungry hands seeking work than are required by the masters. To quarrel with their masters is to face utter destitution, and matters are made still worse for the Indian workman through his having no workhouse to fall back upon. It is a case of work without complaining, or starve. It is simply a manufacturer's quibble to pretend that such men are on a par with our English operatives, and to assert that they therefore require no protection. It is simply another way of asking that poor, spiritless, overburdened, hungry men may be left to the mercy of the sweaters to work them to death on famishing pay.

* See also paragraph 109.

125. The true cause for the absence of complaint of overwork and ill-treatment in the Indian factories is thus plainly given by Mr. Sidney Smith, District Superintendent of Police and Inspector of Factories, Cawnpore. In his report, dated December 22nd, 1888, he states :—

Complaints are never made by any of the employed, adults or children. Nor should I expect complaints to be made to the inspector, unless the matter was extremely serious. For the employed are so much under the control of the mill authorities, their bread depending upon the goodwill of the latter, that it is not to be expected they would complain.

WORKERS IN WORKSHOPS AND IN SMALL FACTORIES TO REMAIN UNPROTECTED.

126. Man, woman, and child, down to little babies who can scarcely toddle, working in workshops and smaller factories are at present without protection in India; and in the projected Amendment to the Indian Factory Act it is proposed to exclude from protection not only the men, but also the women and children employed in all factories working less than four months in the year—in some of which the hands are worked for 10 and 12 days and nights at one spell—as well as all who are employed in the workshops, those terrible sweaters' dens, some of which are described in paragraphs 118–122.*

RESOLUTION OF THE BOMBAY GOVERNMENT ON THE REPORT OF THE COMMISSION OF 1884.

127. In their resolution, dated February 4th, 1885, on the report of the Commission, which was forwarded to the Government of India, the Bombay Government expressed their opinion that the following amendments should be made in the Indian Factory Act of 1881 :—

1. The minimum age at which a child should be employed to be raised from 7 to 9 years.
2. The age when the child is to become an adult to be raised from 12 to 13, if the child has passed an educational test, otherwise to 14.
3. No child to be employed in a factory unless certified as fit and of the proper age by a certifying surgeon.
4. The working hours of children should remain 9, but the working hours for them should be from 7 a.m. to 5 p.m., one hour being allowed for meals and rest.
5. The working hours for women should not exceed 11, and be fixed from 6 a.m. to 6 p.m., with an hour's interval for food and rest.
6. The provision for children of four days' holiday in a month should be extended to women.†

* See also paragraph 105.

† Two of the Commissioners, Dr. Blaney and Mr. Bengali, were of opinion that the mills should be closed one day in the week, as a day of rest was absolutely required for the adult male operatives as well as for the women and children.

7. The sanitary provisions in the English Factory Act should be embodied.
8. Any factory in which not less than 10 women or children are employed, in which steam, water, or other mechanical power is used, where either 10 women and children are employed, or where 20 persons in all are employed, whether partly women and children or all male adults, should be brought under the Act.
9. The Act to apply to the whole of India.

OPINION OF THE BOMBAY GOVERNMENT AS TO THE MINOR FACTORIES.

128. In reference to the workers in smaller factories who would be protected by clause 8, the Government of Bombay stated :—

The latter class stands as much in need as the former of efficient protection from preventable accidents and injury to health from work carried on for protracted periods under most dangerous conditions. Indeed, legislation would seem to be more imperatively wanted in the case of small factories, such as those mentioned in the report, owned by petty capitalists, and worked so as to secure a profit without any consideration for the life and health of the miserably paid employés, than it is in the instance of the larger mills. The necessity for the extension of the law to workshops in which only manual labour is exercised does not appear to the Governor in Council to be established. Such workshops are believed to be comparatively few, and the persons employed in them are ordinarily adults.

129. If the Governor in Council had taken the trouble, before writing their resolution, to look at the census statistics collected four years previously, in 1881, they would have found that millions of people were employed on handicrafts in India, and would have become aware that legislation for the protection of people so employed was even more necessary than for the operatives working in the factories. The barbarity of allowing such a condition of affairs to continue in Indian workshops as is portrayed in paragraphs 118–122 is execrable, and is a standing disgrace to the Government of India.

INSUFFICIENCY OF THE PROPOSALS OF THE BOMBAY GOVERNMENT.

130. Table No. 4, paragraph 52, shows clearly how very insufficient were the proposals made by the Government of Bombay. Instead of fixing the age for children as between 10 and 14 years, defining the hours which the mills shall be allowed to work as between 6 a.m. and 6 p.m., and periods for rest so that no operative should work for more than 4 hours at a spell, allowing 4 days' holidays to all the operatives, as was proposed (see paragraph 95) by the Bombay Sanitary Commission of 1884, and fixing the work hours for children at 6 per diem, as had been proposed by the chief witnesses before the Commission—the age was fixed, in the proposed amendment, for children from 9 to 13, no hour was stated for the mills to commence and conclude running, and no holidays were proposed for any male above 13 years of age. Children under 13 were allowed to work 9 hours a day, or 54 hours a week, or for

nearly twice as many hours as children under 14 may work in English factories; and if a rest day did not intervene, the work would amount to 63 hours. All females over 13 were allowed to work 66 hours a week if a rest day fell in the week, and 77 hours a week if the week did not include a rest day. Girls of 13 years of age might, therefore, have to work more than 20 hours a week than grown-up men have to work in England. Male children from 13 years upwards would be without protection, and would have to work 98 hours a week in summer, or nearly twice as long as grown-up men work in India, and nearly 70 hours a week longer than English children of 13 years who have not passed the educational test.

REFUSAL OF THE INDIAN GOVERNMENT TO AMEND THE FACTORY ACT.

131. In reply to the letter of the Bombay Government, enclosing the report of the Factory Commission of 1884 and their proposed Amendment to the Indian Factory Act, that Government received the following snub from the Viceroy in Council:—

> The Government of India is not prepared at present to undertake further factory legislation of a general character, but that, if the Bombay Government thinks it necessary to supplement the existing provisions of the Local Boiler Inspection and Municipal Acts in order to secure the adequate protection of employés and improved sanitation in the smaller factories to which the Indian Factories Act does not apply, His Excellency in Council will not object to steps being taken to this end.

132. The only protection that the Indian Government would allow to be granted to operatives and workpeople who, according to medical officers, factory inspectors, and numerous witnesses examined before the Factory Commission, were being sweated to death amidst dangerous machinery and unsanitary surroundings, consisted of boiler inspection and the application of a few sanitary rules. Women and children, as well as men, might toil twelve days and nights in succession, without rest, in the sweaters' dens, or until they were worn out and on the brink of the grave. What did it matter to the Indian Government? Rather than stultify their action in framing the ineffective Factory Act of 1881, by consenting to its amendment four years after it had been passed, the Indian working classes might die and be d——d. Could there be any stronger disproof of Lord Cranbrook's assertion that "the Indian Government is not at all inclined to do less than the circumstances of the case demands, or to fall short of its duties"?

ACTION OF THE SECRETARY OF STATE FOR INDIA IN 1888.

133. No further action was taken in the matter of amending the Indian Factory Act for more than three years, and even then the initiative lay with the Secretary of State, whose attention was

drawn to the subject by a memorandum, printed at pages 112 to 123 of the Report of the Chief Inspector of Factories (England) for 1886-87, in which Mr. Jones, late Inspector of Factories under the Bombay Government, brought the shortcomings of the Indian Factory Act prominently to notice. The subject could no longer be avoided, it had become a public scandal. The Secretary of State, in his despatch to the Government of India, dated May 3rd, 1888, called for a report on the working of Indian factories and the Indian Factory Act. The Governments of the various Provinces were accordingly called upon for a report, and the district officers—who acted as factory inspectors, in addition to their other duties, after Mr. Jones, the trained English Factory Inspector, had resigned—were instructed to give their opinions upon the memorandum of Mr. Jones.

THE FOLLY OF APPOINTING UNTRAINED FACTORY INSPECTORS.

134. In his letter to the Government of the North-West Provinces and Oude, dated December 20th, 1888, the Magistrate of Agra thus points out the folly of appointing untrained officials to the post of Factory Inspector. He says:—

> I am incompetent to pronounce if the mills are or are not dangerous in character. . . . I have the uncomfortable feeling that my inspections are those of an amateur who knows little or nothing of the subject. I believe some three or four years ago it was by accident discovered that one of the boilers in the press of Messrs. John and Teka Ram was worn so thin and so much eaten away by the action of the brackish waters of Agra that it was a matter of surprise that it had not burst long before. It will be perceived at once that only an expert can test and examine a boiler. In the same way now, on inspecting the machinery of the Agra Spinning and Weaving Mill Company, I see hundreds of wheels by which accidents may happen every day; but on calling the attention of the manager to this, I am met by various devices, *e.g.*, he explains that these are the latest patents and universally accepted as the best kind of machinery, and that it is impossible to fence them in, or that such open unfenced machinery is allowed at Cawnpore, Delhi, &c.; I, as Inspector under the Act, am quite unable to controvert either of these explanations or any similar one, and I may pass over some part of the machinery that is dangerous in the extreme. An engineer expert would be able to understand, examine, and test the allegation of the factory manager or engineer in a way that is impracticable from a civil officer.

135. Another of these untrained inspectors, Mr. Winter, District Magistrate, Thana, in the Bombay Presidency, states in his report, dated August 4th, 1888, that—

> I am not aware that the managers of either of the Kurla mills are incompetent, but the number of accidents reported seems large, and it is to be regretted that the professional inspector, Mr. Jones, has left the Presidency.*

* For the opinion of other factory inspectors on this subject, see paragraphs 153 and 154.

CONDITION OF INDIAN FACTORIES IN 1888.

MILLS WORKING BY ARTIFICIAL LIGHT.

136. In his evidence before the Bombay Factory Commission of 1884, the late Acting Inspector of Factories pointed out that two of the mills had employed electric light for two or three months, working their hands from daylight to 10 p.m., or 16 hours, with half-an-hour intermission at noon, and another half-hour at about 5 o'clock, but had left off using the light because it did not pay. In the reports of the Factory Inspectors, in 1888, it appears that it is the general rule in India to run the mills from dawn to dusk, but that in some of the mills the work hours are prolonged by the use of the electric light. Thus, for instance, the Muir Mill Company, at Cawnpore, in the North-West Provinces and Oude, run their mills in the cold season from 6-30 a.m. to 7-30 p.m., or for two hours longer than other mills are run at the same place. In the same way the North-West Jute Mills Company continue working from 5-30 a.m. to 7 p.m. in the cold weather; a woollen mill in the Punjaub works from 5 a.m. to 1 a.m., *i.e.*, 20 hours a day, using two sets of hands; and a jute mill in Bengal, belonging to a native, had been working for several weeks from sunrise up to about 10 p.m.

137. HOURS RUN AT A FACTORY NOT USING ARTIFICIAL LIGHT.

The following Table shows the HOURS *for* COMMENCING *and* CONCLUDING WORK *at a* JUTE FACTORY *in the* MADRAS PRESIDENCY *in 1887, which may be taken as the* AVERAGE HOURS *run by* INDIAN MILLS WORKING *from* SUNRISE *to* SUNSET.

TABLE No. 5.

Month.	Earliest time for commencing work.	Latest time in which work was stopped.	Duration of time.
	A.M.	P.M.	HRS. MIN.
January	5-50	5-50	12 0
February	5-45	6-10	12 25
March	5-35	6-45	13 10
April	5-15	6-50	13 35
May	5-0	7-5	14 5
June	5-0	7-15	14 15
July.....	5-0	7-0	14 0
August	5-5	6-55	13 50
September.....	5-15	6-45	13 30
October	5-25	6-25	13 0
November	5-35	5-50	12 15
December	5-45	5-55	12 10
Average	5-22½	6-33¾	13 11¼

138. Assuming that the hours in the above table are the ordinary hours run by a mill working from dawn to dusk in India, and taking Mr. Jones's statement (see paragraph 98) that some of the mills only allow of one interval of from 12 to 15 minutes throughout the day, we may conclude that the average daily work hours throughout the year of an Indian operative in a mill running from dawn to dusk amount to about 13 hours, and that in the month of June the operatives in Bombay and elsewhere have to work for 14 hours. In mills using the electric light these hours are exceeded.

INTERVALS ALLOWED FOR REST DURING THE DAY.

139. The intervals allowed for rest in Indian factories, according to the reports of the Factory Inspectors, vary greatly. In textile factories in the Bombay Presidency, the recess varies from a quarter of an hour in the city of Bombay to 1 hour at Belgaum. In the Punjaub, half-an-hour is allowed; in the North-West Provinces and Oude, 1 hour; in the Central Provinces, from 25 minutes to half-an-hour; in Bengal, where the shift system pertains, some of the batches work for 9 and 10 hours without a break, and the other batches have an interval of 3 hours; in Madras, half-an-hour is allowed in the city; the same interval in Bellary; and 1½ hour during five months, and 2 hours during seven months, in the jute factory at Chittivalsa. All of these recesses are granted in one interval, and not after two and four hours' spells of work, as in England.

HOLIDAYS ALLOWED TO ADULTS.

140. In Madras, the holidays allowed to adults in textile factories are given in the reports as follows:—Bellary, two Fridays a month, and Hindu and Muhammadan festival days; Christians being allowed an extra half-day on Sundays. In Vizianagram the jute factory closes on Sundays, and on 8 English and 9 native holidays during the year. In Madras city the average full holidays are given as 12, and the Hindus are required to work on some of their most important feast days; two days in the month are allowed as partial holidays (cleaning days). In the jute factory at Chittivalsa, Sundays are allowed, besides 16 holidays and a quarter-holiday on each Saturday.

141. In Bengal the factories close on Sundays, and in some other holidays are allowed. Many of the jute factories in this presidency, in order to reduce their output, have agreed for the present to work only five days a week, remaining closed on Saturdays as well as on Sundays. In the Central Provinces, the Empress Mills stop work

on every alternate Sunday, unless a Muhammadan or Hindu holiday intervenes, when they stop on such holiday. At Jabalpur the mills are closed for at least two days in the month.

142. In reference to the holidays allowed in factories in the city of Bombay, Mr. Drew, in his report dated 10th July, 1888, states that—

> The mills ordinarily stop for only two days a month, on alternate Sundays, unless there are native holidays; but on all these days, except four or five native holidays on which the mill is closed completely, they have to work from two to four hours in the morning at cleaning the machinery.

143. Further information on the subject of the holidays actually granted in the Bombay mills was given before the "Bombay and Lancashire Cotton Spinning Inquiry," in 1888, by Mr. James Cocker, who for six years had been employed in the management of a Bombay cotton mill. His evidence showed that the supposed arrangement for stopping the Bombay mills on alternate Sundays is openly infringed by many of the millowners. He stated that—

> We reckon to stop every other Sunday for cleaning purposes, but that is not a hard and fast rule—far from it. . . . I have made a kind of diary, having taken note of almost everything of that kind. I noted the Sundays worked for the two years ending December last. . . . We only stopped eleven Sundays during 1887, and then three out of the eleven were stopped simply because we were forced to stop, because the engine broke down and the neck heated. Virtually we only stopped eight Sundays for cleaning purposes, and the cleaning is done for nothing by the hands. Besides these odd Sundays, we have nine full days in Bombay and two half-days.

144. The Bombay mills may, therefore, be averaged as running 347 full days in the year; and, taking Mr. Drew's and Mr. Cocker's evidence together, it is evident that out of the eighteen holidays granted to the operatives only four or five are full holidays, as on the remainder the operatives have to walk perhaps two or three miles to the mill and the same distance back, and to spend from two to four hours in cleaning the machinery.

ONLY TEN DAYS' REST ALLOWED IN THE YEAR.

145. The Collector of Broach, in the Bombay Presidency, in his report, dated 25th July, 1888, states that—

> The hours for work throughout the year are from dawn to dusk, and range from 11½ hours in the cold season to 13 hours 40 minutes in the hot weather. Sunday is not a holiday, and, in fact, the only holidays given are some 10 to 12 days during the year on the occasion of important Hindu or Mahomedan festivals. It cannot, I think, be denied that these hours are far too long, and their curtailment would be advantageous to the employés in point of health.

WORKING EXCESSIVE HOURS IN THE HOT AND SICKLY SEASON.

146. In his report, dated Ahmedabad, July 28th, 1888, Mr. James, the Collector of that district of Bombay, states :—

The hours worked are just as long as the sun affords light. Work begins at early dawn and ends at twilight. During the months of May and June the recorded time during which the engines were at work at one mill, which I recently visited, continued from 13 hours to 13 hours 20 minutes, and at that season when the heat was intense, fluctuating on hot days between 112° and 117° in a verandah or tent, with, this year, the addition of cholera raging in a severe epidemic form. But no relaxation was allowed to the employés either on account of the heat or the epidemic.

WAGES PAID BY THE MONTH, AND A MONTH AND TWO MONTHS IN ARREARS.

147. In paragraph 81 we have seen that one of the chief grievances of the Bombay operatives is that, although they work by piecework, as is the case with their fellow-operatives in England, yet, unlike the latter, they do not receive their pay by the week, but by the month, and frequently fully one month in arrears. This is considered to be a very great hardship by the workpeople, and on October 24th, 1889, the Bombay Mill Hands' Association again petitioned the Governor-General in Council, calling his attention to their memorial of October 15th, 1884, referred to in paragraph 80. From the reports of the Factory Inspectors, in 1888-89, it appears that this grievance exists in other parts of India besides Bombay. The Magistrate of Allahabad says "two months' pay is withheld and kept in hand." At Cawnpore the operatives at most of the mills receive their pay by the month, and are kept a fortnight, and in one case three weeks, in arrears. At the Gokul Dass Mills, in the Central Provinces, it is stated that the wages are usually paid on the 26th of the following month. The mills in Madras pay by the month, fifteen days in arrears; whilst in some of the mills in Bengal, and at the woollen and worsted mills in the Punjaub, wages are paid as in England, by the week.

WAGES PAID BY THE WEEK IN BENGAL.

148. In Bengal, according to the Magistrate of the twenty-four Pergunnahs :—

In some factories wages are paid on the last day of the week for the actual number of days during which the hands worked. . . . It is also the practice in many of the factories to keep in hand a portion of the wages; that is, to pay on the pay-day not the wages earned up to that date, but up to some previous

day. . . . In one case three days', and the other one week's wages, are always kept in hand. In one cotton mill payment is made on the 15th of each month for the preceding month. In this case a fortnight's wages are kept in hand; but this is the only instance of more than a week's wages being retained that has come to my notice.

HARDSHIP TO THE OPERATIVES OF KEEPING WAGES IN ARREARS.

149. The plea of the manufacturers for keeping wages in hand is that, unless they do so, the operatives might desert their work and engage themselves in other mills. But even if this plea is reasonable for holding back a week's wages, as is the general practice in Bengal, it cannot hold good for paying the operatives by the month and keeping that pay a fortnight, and in some cases a month, in arrears, as is the case in Bombay and in other parts of India. The grievance arising from the deferment of paying wages earned in one week until seven weeks after that week has come to a close, instead of paying at the close of the week in which they have been earned, is most vexatious. The practice cannot be defended, particularly when the impoverished condition of the Indian operatives is considered; and it is known that such a mode of payment hands the working classes into the clutches of the money-lender, from whom they are seldom able to escape when once in his toils.

WAGES PAID TO INDIAN OPERATIVES.

150. From the recent reports of the Factory Inspectors I glean the following particulars of the wages ruling in certain textile factories in India :—

At Bellary, in the Madras Presidency, the wages are as follows: Men, 3 to 5 annas per diem; women, 2 to 4 annas per diem; boys, 2 to 3 annas per diem. At Chittivalsa the operatives get, on the whole, 20 per cent more wages than as day labourers. A child over 12 years gets on an average 2 rupees, 2 annas, and 7 pies a month, whereas in the field he would earn 1 rupee, or its equivalent in grain.

According to the Collector at Ahmedabad, in the Bombay Presidency :—

Mill hands at Ahmedabad receive only moderate wages. For example, muccadums (overseers) get 15 to 20 rupees a month; hands at the frames and carding machines, reelers, &c., 7 to 9 rupees; winders, 6 rupees; warpers, 10 rupees; and so on. The ordinary rate of wages outside for common coolies is 3 to 3½ annas a day, or 5 rupees a month, and the mill hands are more or less skilled labourers. Beyond the fact that they are regularly paid, they have little or no advantage over ordinary labourers—certainly not over employés of railway companies.

In a cotton-ginning mill at Amritsar, in the Punjaub, the women and children receive about 2 annas a day, and the working hours are from 6 a.m to 6 p.m., from 1 to 2 hours being allowed for dinner.

OPINIONS OF THE FACTORY INSPECTORS AS TO ALTERATIONS REQUIRED IN THE ACT.

151. Mr. Drew, the Assistant Collector and Inspector of Factories, Bombay, considered that the age when children are classed as adults should be raised from 12 to 14 years, and the limit of their working hours should be reduced from 9 to 5½ or 6, so as to allow them to work in two sets. If this was done he thought it would probably result in the factories working for only double the time fixed for the employment of children, thus reducing the hours to 11 or 12. He said: "If children work for 9 hours, it is impossible to get people to supply their places for the other four." And, in reference to the unventilated condition of the mills, he remarked: "Artificial ventilation, which exists in very few mills, would certainly appear to be necessary, and it would be advisable to add sections 3, 4, and 36 of the English Factory Act to the present Indian Act."

152. Mr. Sheppard, the Commissioner of the North Division of the Bombay Presidency, said:—

My own opinion is that the hours of work are somewhat too long for this climate, and that sufficient time is not allowed for rest and recreation. . . . Mill hands here are paid "by the piece," and consequently work is of a more voluntary nature than in Europe.* Again, the regular and abundant supply of food obtainable by mill hands, and especially by the children,† is an equivalent, though perhaps not quite a full one, for the long hours of labour. . . . Once more, work here is not so severe nor so continuous as in the mills at home.† On the other hand, it must be remembered (1) that it is the duty of the State to provide for the physical as well as the moral well-being of its people; (2) that as irregular or short attendance soon results in loss of employment, the long hours are not altogether "voluntary;" (3) that as only inferior work can be obtained from exhausted hands, reasonable work hours are to the advantage of employers as well as of the employed. Protracted and determined as was the opposition to the Factory Act in England, the practical result is now admitted to be beneficial to manufacturers and to their labourers. I do not think that more than 12 hours' work should be exacted from male hands, and I believe that such limitation of labour would be generally popular. Four holidays in each month should also be allowed.

* Nearly every wage in the textile industry in the United K'ngdom is paid by the piece. Work in India is, therefore, not of a more voluntary character than in England, and this statement, which has so frequently been foisted on the Government of India by the Indian millowners, is quite baseless and untrue, and has only been used for the purpose of deception.

† For the refutation of these statements see paragraphs 49, 50, and 68.

153. Mr. James, the Collector of Ahmedabad, remarks that—

The Secretary of State inquires, in paragraph 3, how the plan of placing the duty of inspecting factories in the hands of magistrates has answered. I reply that in Ahmedabad it is a complete failure. The magistrate has far too much else to do to pay constant visits to mills for the purpose of inspecting the young children; and he has no technical knowledge to enable him to espy any particularly dangerous machinery which ought to be fenced. The result is that the rules against the employment of children under 12 on full time are not always acted up to, and that the magistrate has never felt himself in a position to order machinery to be altered. . . . I certainly think that the age of children should be raised to 14 at least, and that factories should not be allowed to work longer than from 6 a.m. to 6-30 p.m., allowing half-an-hour at mid-day, without double shifts of men. . . . If, however, the Government should think it inexpedient to hamper millowners by restricting the hours of work, at any rate, in the name of humanity, let them raise the age for children and insist upon a good water supply, upon proper ventilation and sanitary appliances.

154. The opinion of Mr. Mackenzie, the Collector of Broach, I have given in paragraph 145. Mr. Porteous, the Acting Collector, Surat, remarks :—

I am not in favour of the arrangement which makes the District Magistrate the Inspector of Factories within his jurisdiction. To say nothing of the many other calls on the time of a collector and magistrate, his inspection of a factory must always be more or less unsatisfactory. . . . To take my own case; I know nothing of machinery. I cannot tell whether it is new or worn out. . . . The pressure at which the boilers are working conveys no meaning to me, and I have no standard to judge whether the amount of fluff flying about in the rooms is excessive or unusual, or deleterious to health. . . . I would say that the hours of work are too long, and the holidays are too few. There is generally competition for work at a mill, and the hands have as yet no idea of combining to further their own interests. It is true that they are better off, better fed, and better clothed than ordinary labourers,* but I am by no means sure that these results do not follow from the exacting from them an amount of work which must prematurely impair their physical energies. While leaving mill managers, therefore, as much freedom as possible, I think it would be well to lay down the limits of the working day, and in this respect legislation is, in my opinion, called for.

155. Mr. Winter, District Magistrate, Thána, stated that—

I think it necessary in the interests of the mill hands that it should be enacted that the mills are to be entirely stopped on one day in every seven, and also that the hours of work should be limited. At present mills are worked from dawn to dusk, with a short stoppage in the middle of the day for oiling the engines, &c. Dawn to dusk means a longer day's work than a man can properly do, especially when the stifling atmosphere, in which a considerable amount of the work has to be done, is taken into consideration. I should think nine hours a day, with

* This phrase has become a formula in the mouths of manufacturers and millowners, and has been used as a sort of incantation to prevent the passage of factory legislation wherever it was proposed. In paragraph 12 I have shown that the same statement was made in connection with the stunted and deformed children in Scotch factories before the Select Committee of 1816, who were crippled by working excessive hours.

half-an-hour's interval for rest, an ample day's work. Then the question of children requires legislation. At present if a boy shows the number of teeth prescribed by Government Resolution he is held to be 12, and therefore an adult. The temperature in the mule-rooms is, I believe, necessarily high, and, if that is so, the evil effect of working in it can best be remedied by shorter hours of work.

156. Mr. Propert, Commissioner of the Southern Division of the Bombay Presidency, states: "The hours of work (5-30 a.m. to 6-30 p.m., with an interval of one hour at noon) at the Gokák mills appear to be too long." Mr. Woodward, the Collector of the Sholápur District, observes: "The hours of labour set down for adults are often too long for boys who bear certificates of being above 12 years of age. The definition of 'child' should embrace all children under 14 years of age instead of under 12." Mr. Loch, the Collector of Khandesh, with regard to the Jalgaon spinning and weaving mill, states that "the hours of work are from sunrise to sunset, with an interval of one hour or so in the middle of the day. The working day, therefore, comprises from 10 to 11 hours of actual work, and this all the year round is too much. In no case should more than 10 hours' work be allowed. Nine hours should be the maximum." Mr. Moore, Officiating Commissioner of the Central Division of the Bombay Presidency, in forwarding the reports of the collectors in his division, remarks upon Mr. Loch's suggestion that "I agree with him;" and he goes on to say: "The suggestion of the Collector of Sholápur, that the definition of 'child' should be made to embrace all children under 14 years, is one deserving of consideration."

157. In the Cawnpore factories, Mr. Wells observes:—

> The registers of children show them all as working 8½ to 9 hours. In practice, I believe that they all come and go with the other workpeople. . . . No child should be within the factory walls more than 9 hours a day, whereas, as a fact, they are generally to be found there during 12 hours,* and whether within that period they are allowed to run outside for intervals aggregating three hours is a matter entirely at the discretion of the foreman of the work-rooms.

Further on in his report he says:—

> This appears to be further necessary, as the inspector informs me that he believes boys are often entertained whose ages are doubtful. In two rooms which we visited together there was on our entrance a sudden stampede of small boys from another door, and I myself noticed something of the kind in another mill. But the inspector informs me that he has frequently noticed similar stampedes; and he is disposed to believe that some of these boys are not entered in the register, or else ran away for fear of being pronounced too young, and so losing their employment. . . . From the inspection notes I gather that some accidents occur from children taking their food under throstle machines (against orders, *and in order to save their food hour to play in*), that children are employed in the mule-rooms, and, in spite of the provisions of the law, are sometimes

* See also paragraphs 53, 67, and 89.

allowed by reckless foremen to run in and clean the machinery when in motion. One inspector noticed on the undesirability of allowing very young children, who come in with their mothers, to be in rooms where there is steam machinery. I myself noticed in the Muir mills some women picking cotton on the ground with some very young children, and steam machinery working a few feet off.

158. Major Rennick, Officiating Deputy Commissioner of Mooltan, in the Punjaub, observes that—

It will be a great boon to those employed in factories to have the hours of labour restricted, say to eight or nine hours a day, and a day of rest in the week, which may be Sunday. At present the hands are employed from sunrise to sunset, with one hour of rest during mid-day to eat their food, and, except on great festivals, the factories are never closed.

159. Mr. Simpson, Deputy Commissioner of Police and Inspector of Factories, Madras, considers that the Indian Factory Act of 1881 should be modified as follows :—

(*a*) No adult person should be employed in any factory more than 12 hours in any one day.

(*b*) No person shall be employed in any factory on any day without an interval or intervals amounting in the whole to one hour being allowed to him for food and rest.

(*c*) That all mills be closed on Sundays, and those days be considered as close holidays.

(*d*) That 20 days in the year be set apart as festival holidays for all classes employed in the mills, and that these days also be considered as close holidays.

(*e*) That the lower-paid operatives be disbursed their wages once in 15 days, and the others once a month.

160. The Deputy Magistrate of Vizianagram Division, Madras, observes that—

In January the work begins at 5-50 a.m., and continues till 5-50 p.m., while in June it begins at 5 a.m. and continues till 7-15 p.m. One and one-half* to two hours' recess is given in the mid-day between 12 to 2 o'clock every day for meals, and the balance represents the actual working period. I beg to strongly recommend that the working be restricted from 6 a.m. to 6 p.m. in all seasons, the recess in the mid-day being regulated by the owners of the factory according to the exigencies of the times. It is hard to make not only the labourers of various classes and degrees employed in the factory, but also the manager and his assistants, work at this rate. It must tell upon their health in a few years, and incapacitate them for further active service. I understand that there is light enough as early as 5 a.m., and so late as 7-15 p.m., in June to enable the labourers to get along with their work, but they must break down under this continued strain. I am assured by the manager of the factory that the light at 6 p.m., in January, is sufficient to enable the workmen to get along till that moment.

* 12 to 1-30 p.m., from November to the end of March; 12 to 2 p.m., from April to the end of October.

161. Colonel Scott, Deputy Commissioner of Wardah, Central Provinces, after inspecting the Hinganhat Mill, reported that—

There are some children employed in the reeling-room, where the passages between the different sets of machinery are narrow, and along these passages are straps and wheels quite unprotected. This is decidedly dangerous. . . . In respect of children, I noticed at my last inspection that days which had been reported to me as holidays had not been kept as such. I therefore adopted the plan of informing the tahsildar of the days fixed as holidays, and requiring him to report that they were observed, and have recently received a report that they were not. The matter is under investigation. I fancy that a close watch will have to be kept in this respect with regard to children.

162. Colonel Bowie, Officiating Commissioner, Jabalpur Division, observes:—

I concur with Mr. Ismay in thinking that, having regard to the factories in all parts of India, it would perhaps be advisable to restrict by legislation the hours of labour, not only of women and children, but also of all employés, and to provide that factories should be closed four times a month.

163. In Bengal the system of working the operatives is much less oppressive than in other parts of India, as the mills close on Sundays and on about six or eight other holidays, and a shift system of 9 hours in the cold season, rising to 10 hours in the hot season, has been introduced, under the orders of the Government, in all factories where children are employed. As some of the batches work continuously during the shift, and the children's shifts are the same as those of the adults, Mr. Bolton, Magistrate of the 24 Pergunnahs, must have been imposed upon, so far as the children's rest hour is concerned, when he reported that—

The children's shifts are the same as those of the adults, but they are allowed one hour's rest, as required by the Act, their actual working time being only 8 hours. The work of shifters, on which they are employed, moreover enables them to obtain a few minutes' rest in every half-hour. Their duty is to remove the bobbins from the spinning-frames immediately they are filled, and replace them by empty ones.

164. If the hour's rest was granted to the children the work of the mill would necessarily be brought to a standstill, as soon as the bobbins were emptied, during their absence. Mr. Nolan, the Secretary to the Government of Bengal, takes Mr. Bolton's assertion as gospel, and states that—

Children are never required to work for more than 4½ hours at one time, and this period is succeeded by an hour's rest. . . . Under these circumstances the Lieutenant-Governor does not consider that further legislative action in the direction contemplated is required, so far as these provinces are concerned.

SUMMARY OF THE OPINIONS OF THE ABOVE FACTORY INSPECTORS IN 1888.

165. It will be seen from paragraphs 151–164 that six of the Factory Inspectors expressed their opinion that children should not be allowed to work full time before the age of 14 years;* eleven of the Inspectors considered that the hours run by the mills should be limited by legislation, so as to protect adult males as well as women and children;† four of them stated that 9 hours should be the maximum working hours for adults in Indian factories;‡ and five said the mills ought to be closed for one day in each week.§ In Bengal, as I have pointed out, no operative is allowed to work more than 10 hours a day, and all the mills close on Sundays. From paragraphs 134, 135, 153, and 154, the folly of leaving the inspection of the factories solely to the district magistrates, instead of allowing them the aid and advice of professional factory inspectors, is apparent.

166. Table No. 6 (see following page) gives particulars of the cotton spinning and weaving mills in India up to June 30th, 1889. It will be noticed that 91 out of the 124 cotton mills are situated in Bombay, and that 15 out of the 17 mills in course of erection lie in that presidency. The opinions of the Factory Inspectors in that presidency, which are so generally in favour of closing the mills once a week and from 6 p.m. to 6 a.m. throughout the year, should bear great weight in favour of their suggestions being carried out.

AMENDMENT TO ACT OF 1881 PROPOSED BY INDIAN GOVERNMENT IN MARCH, 1889.

167. Notwithstanding the great volume of evidence alluded to in paragraph 165, and in the foot-notes appended to it, in favour of

(1) Fixing the maximum age for children at 14 years;
(2) Fixing the running hours of the factories;
(3) Fixing the working hours for all adults at 9;
(4) Closing the mills on one day in seven;

And notwithstanding the great body of evidence in favour of fixing the periods of work for children at half-time, so that they might be employed in two sets,‖ and for allowing the intervals for rest ruling in factories in England,¶ the Government of India determined to attend to none of these matters.

* See also paragraphs 33, 39, 94, 95, and 127.
† See also paragraphs 32, 42, 44, 80, 92, 95, 124, and 127.
‡ See also paragraphs 32, 42, 44, and 46. Sir Theodore Hope, when Public Works Member of the Viceroy's Council and a Member of the Select Committee for drawing up the Indian Factory Act, strongly urged that "nine hours should be the authorised period of employment, including an aggregate of one hour's interval for rest and recreation, subject to the restriction contained in the English Act against more than 4½ hours' continuous work without an interval of at least half-an-hour."
§ See also paragraphs 32, 42, 90, and 95.
‖ See paragraphs 33, 39, 42, 44, 94, and 151.
¶ See paragraphs 57–62.

COTTON SPINNING *and* WEAVING MILLS WORKING *and in course of erection* IN INDIA, *on June 30th, 1889.*

TABLE No. 6.

WHERE SITUATED.	Number of Mills.	Total paid-up Capital.	Number of Spindles.	Number of Looms.	Average No. of Hands employed daily.	Approximate amount of Cotton consumed.	
						Cwt.	Bales of 392 lbs.
		Rs.					
Bombay Island (working)	55	4,93,42,825	1,591,328	13,380	54,490	1,973,055	563,730
Do. (being erected)	14	....	....	....	....	....	....
Bombay Presidency (up-country)	*22	1,21,49,750	411,666	3,297	13,090	363,888	103,968
Total Bombay Presidency	91	6,14,92,575	2,002,994	16,677	65,580	2,336,943	667,698
Berar	2	4,52,800	33,524	338	1,037	19,376	5,536
Central Provinces	3	27,52,000	67,720	600	3,794	91,021	26,006
Hyderabad (Nizam's)	2	12,79,150	35,172	425	1,535	37,562	10,732
Central India	1	8,00,000	26,036	464	714	34,524	9,864
Bengal Presidency	*7	83,18,500	249,758	....	6,300	297,836	85,096
North-West Provinces	5	32,22,300	127,242	2,133	4,912	94,766	27,076
Madras	*9	46,74,250	152,800	470	4,671	153,125	43,750
Travancore	1	....	21,300	....	675	16,513	4,718
Mysore	2	8,17,000	23,172	....	880	20,223	5,778
Pondicherry	1	29,41,150	22,800	454	1,500	8,400	2,400
Total all India	124	†8,67,49,725	2,762,518	21,561	91,598	3,110,289	888,654
INCREASE COMPARED WITH 1888.							
Bombay Island	8	39,33,550	134,313	628	6,701	223,041	63,726
Do. Presidency (up-country)	1	6,29,250	48,312	485	1,680	24,171	6,906
Total Bombay Presidency	9	45,62,800	182,625	1,113	8,381	247,212	70,632
Other Provinces	1	8,17,250	91,042	952	838	108,640	31,040
Total all India	10	53,80,050	273,667	2,065	9,219	355,852	101,672

* Including one mill at Ahmedabad, Bombay Presidency, and one in Bengal, at Calcutta, and one at Coimbatore, in Madras, being erected.

† Excluding the capital of seven mills, privately owned (four in Bombay Island, one in Bombay Presidency, one in Berar, and one in the N.W. Provinces), of which no returns were received. Of the new Bombay Island mills, three have commenced working in the past year, and two old ones remain in liquidation.

Total paid-up capital of 117 mills, 867½ lakhs of rupees, or with the privately owned ones, say 918 lakhs, *plus* 50 per cent for borrowed capital, gives a total of, say, 1,377 lakhs of rupees invested in the industry.

168. In their despatch to the Secretary of State for India, dated 5th March, 1889, instead of alluding to the evidence of their medical officers, sanitary commissioners, and factory inspectors, and to the evidence which had been given by mill managers, engineers, and operatives before the Bombay Factory Commissions of 1875 and 1884, the Government of India took no notice of it, and repeated as gospel the outrageous, utterly untrustworthy, and frequently exploded statements that had been floated by the Bombay millowners in order to prevent factory legislation.

169. In their despatch, the Government stated that they took the report of the Bombay Factory Commission of 1884 as the basis for their amendment of the Factory Act. This Factory Commission, as I have proved in paragraph 77, was mainly formed of members of the Bombay Millowners' Association, the very body that had constantly been urging the Government not to legislate for the protection of the operatives. We will now see how gravely the proposed amendment to the Act departed from the proposals of the Factory Commissioners. In paragraph 127 I have alluded to these proposals. The Factory Commissioners suggested that the maximum age for a child should be fixed at 13, in case the child had passed an educational test, otherwise at 14; and that the period of child's labour should be taken between 7 a.m. and 5 p.m., so as to enable the inspectors to check their hours of attendance, and thus to prevent them from being worked as long as the men. In the proposed amendment to the Factory Act, the Legislative Council of the Viceroy omitted both of these clauses, so that children would be still left entirely without protection, for it had been conclusively proved by the Factory Commissioners of 1884 (see paragraph 53) that, in the absence of the statement in the Act of a prescribed period in which work should be performed, it was impossible to ensure the children from being employed as long as the men. Four days' holiday a month had been proposed for women by the Factory Commissioners of 1884. This proposal was likewise purposely omitted by the Government in the proposed amendment to the Act.

170. The purport of the amendment proposed by the Viceroy in Council was as follows:—

(1) The hours for women to be from 6 a.m. to 6 p.m., with an interval of one hour for rest, thus limiting their work hours to 11 a day.

(2) Local governments to be allowed to make sanitary rules and regulations.

(3) The minimum age for the employment of children to be raised from 7 years to 9 years.

(4) The clause in the Act of 1881, noted in paragraph 54, by which factories working by power for more than four months in the year were to be excluded from protection if they employed less than 100 hands, was amended so as to bring within the operation of the Act any factory in which not less than 20 hands are employed.

171. The Viceroy in Council furthermore stated that trained factory inspectors were not required in India, because inspection by the magistrates employed as factory inspectors, in addition to their other duties, "meets all the requirements of the case." How contrary this statement is to the facts of the case can be seen from the evidence of the magistrate-inspectors in paragraphs 134, 135, 153, and 154. All or any Government factories were to be liable to exemption from the operation of the Act at the will of the Governor-General in Council.

AMENDMENT TO THE ACT SANCTIONED BY THE SECRETARY OF STATE.

172. On May 14th, 1889, the following telegram was sent by Lord Cross to the Viceroy of India:—

Your despatch of 5th March on Factory Act. I accept your conclusions except on two points; first, I would provide for four days' holiday or absence per month for women, as agreed upon by Bombay millowners, Bombay operatives, and Bombay Government; secondly, exemption of Government factories should not go beyond section 93 of English Act. Please submit Bill accordingly.

STATEMENTS OF THE OBJECTS AND REASONS OF THE AMENDMENT.

173. In laying the proposed Amendment to the Indian Factory Act, as sanctioned by Lord Cross, before the Legislative Council of the Governor-General of India, on January 31st, 1890, Mr. Scoble stated the objects and reasons of the Indian Factories Act Amendment Bill as follows:—

The Government of India, having recently had under its consideration the reports of local governments on the operation of the Indian Factories Act, 1881, and the proceedings of the Commission appointed in 1884 to consider the working of factories in the Bombay Presidency, is of opinion that the Act of 1881 should be so amended as to—

(*a*) Bring within its scope any factory in which not fewer than twenty hands are employed.

(*b*) Raise from seven to nine years the age below which a child may not be employed in a factory.

(*c*) Limit the hours of work for women to eleven in any one day.

(*d*) Extend to women the provisions of the Act with respect to the allowance of holidays to children, and enable occupiers of factories to fix such days as holidays for the women and children employed therein as, having regard to the different classes or castes to which they belong, may be most convenient for them.

(*e*) Authorise local governments to make sanitary rules suited to local requirements.

(*f*) Render it obligatory on occupiers of factories to furnish such statistics as may from time to time be required by the Government.

The object of the Bill is to amend the Act accordingly.

Among the enactments which will be incidentally affected by the Bill (section 9) are the Electricity Act, 1887, the Bombay Municipal Act, 1888, and the Indian Merchandise Marks Act, 1889.

174. Comparison of Proposed Amendment to the Act with Amendment Required by the Evidence.

TABLE showing the WEEKLY WORK HOURS *according to the* INDIAN FACTORY ACT *of 1881; those* PROPOSED *by the* ACT *as* AMENDED *by* LORD CROSS; *those* REQUIRED *by the* EVIDENCE ALLUDED TO *in paragraph 167, the intervals for meals being taken as in England; those* SANCTIONED *by the* ENGLISH FACTORY ACT; *and those* APPROVED *by the* ENGLISH DELEGATES *to the* LABOUR CONFERENCE *at* BERLIN.

TABLE No. 7.

	Intervals of Rest.					Age.		Work Hours.					Rest Days.					
	Children.	Maidens.	Youths.	Women.	Men.	Children.	Youths' and Maidens.	Children.	Maidens.	Youths.	Women.	Men.	Children.	Maidens.	Youths.	Women.	Men.	Holidays.
	Hrs.	Hrs.	Hrs.	Hrs.	Hrs.	Years.	Years.	Hours	Hours	Hours	Hours	Hours.	Days.	Days.	Days.	Days.	Days.	Days
Indian Factory Act..	1	..	..	..	..	7–12	..	†54	(91)	(91)	(91)	(91)	4 a month	..	..	..	..	..
Amended Indian Act..	1	1	..	1	..	9–12	..	†54	‡66	(91)	‡66	(91)	4 a month	4 a month	..	4 a month	..	..
Required by Evidence	½	2	2	2	2	10–14	over 14	27	54	54	54	54	1 in 7	1 in 7	1 in 7	1 in 7	1 in 7	20
English Factory Act..	½	2	2	2	(2)	10–14	14–18	28¼	56½	56½	56½	(56½)	1 in 7	1 in 7	1 in 7	1 in 7	1 in 7	*32
Berlin Conference....	½	1½	1½	1½	..	12–14	14–16 16–18	36	60 ? ‖	60 ? ‖	66	..	1 in 7	1 in 7	1 in 7	1 in 7	1 in 7	..

* Two whole holidays and sixty half-holidays. Eleven full holidays besides fifty-two half Saturdays are allowed in the Oldham cotton mills, making thirty-seven full holidays, or with the Sundays eighty-nine rest days in each year. † Sixty-three hours if a rest day does not fall in the week. Period for labour unfixed. ‡ Seventy-seven hours if a rest day does not fall in the week. ‖ To be subsequently fixed by each Legislature.
( ) Figures in brackets show average hours worked but not fixed by law.

175. It will be noticed, by comparing Tables Nos. 5 and 7, that if the projected Amendment to the Indian Factory Act were passed, male children from 12 to 14 years of age and youths from 14 upwards employed in Indian factories would be without protection, and would be allowed to continue to work 14 hours a day in the summer, or 98 hours a week, and on an average 91 hours a week throughout the year; whereas children between 12 and 14 years are only allowed to work 28¼ hours a week in England, and, according to the English delegates at the Berlin Conference, should be allowed to work in no country for more than 36 hours a week.

176. The projected Amendment to the Indian Factory Act, moreover, affords no protection to persons employed in workshops, those fearful dens some of which are described in paragraphs 118–122; it denies protection to all workers employed in cotton presses and gins which happen to work less than four months in the year; and it refuses protection to all employed in indigo factories, and in the factories situated on the numerous tea and coffee plantations. In paragraphs 84, 85, 140, 166, and 169, I have shown how greatly protection for these classes is needed.

SUBSEQUENT ACTION TAKEN BY MYSELF AND OTHER PARTIES.

177. In *The Times* of February 3rd, 1890, a telegram appeared from its Calcutta correspondent, giving details of the projected Amendment of the Indian Factory Act, and stating that it was then before the Legislative Council of the Viceroy. No time was therefore to be lost in bringing public pressure to bear upon the Government, so that proper protection might be afforded to the working classes in India. On the fifth of the same month I addressed the annual meeting of the Blackburn Chamber of Commerce on the subject, and strongly advised its members to memorialise the Secretary of State for India, and to bring every pressure possible upon the Government to have the English Factory and Workshop Act enforced in India. Mr. Henry Harrison, the clear-sighted and humane president of the Chamber, together with its members, took the matter up with great spirit, and at once forwarded a strong memorial to the Secretary of State, and followed it up by another treating with the evidence contained in the Indian factory inspectors' reports of 1888, and pointing out the evil condition of the Indian operatives and the great discrepancy between the working hours allowed by the English Act and those in the projected Amendment to the Indian Act.

178. On April 2nd and April 10th I broached the subject in *The Times*, and on the latter date received the backing of that journal in a leading article, in the course of which it was stated that—

Not the least interesting part of Mr. Holt Hallett's first letter is that in which he quotes from a speech delivered in the House of Lords by Lord Cranbrook, then Secretary of State for India, in 1879, to the effect that the Home Government was fully aware of the necessity for the Indian factory legislation which had even then been proposed, but which was only carried into effect in an emasculated and comparatively inefficient form. Since then the case has been enormously strengthened, not only by increased experience at home, but also by the recent action of the Berlin Conference on labour questions, and by their adoption of the principles which we brought into operation so many years ago. It would be an absolute disgrace to this country, the acknowledged pioneer of factory legislation in Europe, and in whose footsteps other European Governments are only now beginning to tread, if Indian manufacturers were still suffered to practice barbarities which our representatives at the Conference fancied themselves able to denounce from a position of unassailable security. We must not forget that we are to some extent upon our trial in the matter, for our rivals would not be slow to point to India as an evidence of our insincerity in the adoption of the reforms upon which we have so long prided ourselves. It is worthy of note that our own manufacturers have long since adjusted their arrangements to the altered conditions under which the law has compelled them to carry on their business; and that our cotton trade has not been ruined by the competition of countries in which no similar legislation has existed. Notwithstanding the fears of the Indian manufacturers, we cannot but think it probable that they would gain, rather than lose, by the complete adoption of the English Factory Acts. Excessive labour always tells prejudicially upon the quality of the work that is done, and often tells prejudicially even upon the quantity. A weekly holiday, and a restriction of work within limits suited to the strength of the workers, cannot fail to be contributory to the growth of a more capable and a more intelligent population; and these qualities, in the long run, will be found to develop working capacities much superior to those of the exhausted and overtaxed. We trust that the Viceroy's Council will afford to the Indian operatives a protection which common sense, even apart from the evidence, proves to be required; and that the Home Government will place no obstacle in the way of the proposed enactment. There may be many questions of detail with regard to its precise provisions, but there can be none with regard to the principles upon which it should be based.

179. *The Times* was ably seconded by *The Saturday Review*, *The Record*, *The Christian*, and other papers; and questions were asked in Parliament on the subject by Messrs. Mundella, Samuel Smith, and Maclean on April 17th, by Messrs. Mundella and Howorth on May 5th, by Mr. Howorth on May 12th, by Mr. Maclean on May 13th, and by Mr. Hoyle on July 28th. In answer to the latter gentleman, Sir John Gorst, the Under Secretary for India, who had served as the chief representative of this country at the Berlin Labour Conference, said:—

The report and proceedings of the Berlin Conference have been sent to the Government of India for consideration with the Factory Law Amendment Bill now before the Indian Legislature. The principles affirmed at the Conference are being, and will be, observed in India. Until the Government of India report their views, the Secretary of State cannot say how far the detailed recommendations of the Conference will be applied to India.

180. How far "the principles affirmed at the Conference are being observed in India" can be seen by referring to my letter in *The Times* of August 21st, and to Table No. 1, and paragraphs 23 and 24, where it will be seen that the Indian Factory Act affords no protection at all to the parties specified in the agreement of the Berlin Conference, but merely to children under the age of 12, who, according to the agreement, should not be employed on any work.

OVERWORKING THE INDIAN OPERATIVES ACTS AS A BOUNTY GRANTED TO INDIAN MANUFACTURERS.

181. There can be no doubt, when we consider the past action of the Government of India, that it will strive its uttermost to prevent the recommendations of the Conference from being applied to India. It has all along considered that the two weapons by which alone the Indian manufacturers could oust British manufactures from the East—from India, China, Japan, the Straits Settlements, Australasia, Indo-China, Asia Minor, and Eastern and Southern Africa; in fact, from all our Eastern markets—consisted of the fall in the value of silver, and the excessive hours worked for poor pay by the Indian operatives. As long as these weapons remained in use, so long would there be a temporary stimulation to the export of Indian manufactures and to the replacing of English goods by Indian manufactures in our Indian Empire. It did not matter to the Indian Government that the British industries would be seriously damaged and the Indian operatives permanently injured by such a policy. They seem to have been blind to the fact that this temporary stimulation to the expenditure of capital in Indian mills must end in disaster to the capitalists as soon as the temporary stimulation was withdrawn, in the same way that disaster fell upon the millowners in the Rossendale and other valleys in Lancashire when the Indian mills, bolstered up by these temporary bounties, ousted British coarse cotton yarns from our Eastern markets.

EVILS OF THE BOUNTY SYSTEM.

182. When Sir William Vernon Harcourt, speaking in Parliament on April 18th, 1890, asserted that though the depreciation of silver was an admitted evil for Lancashire, it was an unmixed benefit to India, Mr. Balfour gave the following statesmanlike reply:—

> Let me point out, with regard to Indian manufactures, that we cannot regard any temporary stimulation of its export trade as an unmixed benefit to that country. One of the great evils of any bounty system—and this by the hypothesis is a bounty system—is that it is, or may be, temporary in its effects. It stimulates trade, but it cannot support the accumulation of labour and capital in an

industry predestined, from the fact that the industry is temporary, to ruin, or comparative ruin, at no distant date; and while, therefore, the benefit conferred upon India, the country in which the bounty is given, may be temporary, the injury done to England, the country against which the bounty is directed, may produce consequences of a very far-reaching kind. Because, notice this, these evils, the diversion of the trade from one channel to another by artificial means, are not to be measured by a simple consideration of the loss or gain to the community of a cheaper article. The great injury to the community arises from the fact that, when you move capital from one industry to another, one instrument of production moves more easily than another. You may easily transfer floating capital to a more profitable industry, but that part of capital which is embodied in machinery and buildings you cannot, and it is entirely lost during the whole period over which the industry is artificially transferred, let us say, from Lancashire to India. And so as to labour. Lancashire labourers who suffer from this temporary bounty given to the Indian labourers cannot transfer their industry to a new market, while the Indian labourers will in their turn suffer when the artificial bounty produced by the divergence between gold and silver comes to an end.

183. For the last fifteen years the Indian Government has been misled by the cry that, unless manufacturers in India are allowed to commit the malpractices which have been for long put a stop to in factories in the United Kingdom, the Indian manufacturers will be unable to compete with our home manufacturers in the Eastern markets. In paragraphs 1–8 I have exposed the old and long since exploded argument that the longest hours worked in factories imply the greatest volume of product. It is so well known as to be universally allowed in England that the restrictions placed upon our manufacturers by the provisions contained in our Factory and Workshop Act, far from hampering them in their competition with foreign rivals, have proved decidedly beneficial to manufacturers as well as to the working classes. Even if the Indian Government were right in their opinion that by refusing the protection afforded to our working classes by our Factory and Workshop Act to their fellow subjects in India they could bolster up and foster the growth of manufacturing pursuits in India, it cannot be urged that it is otherwise than cruel and unstatesmanlike to do so when, as has been shown conclusively in this article, the Government is aware that by such action it tends to destroy the health, shorten the life, and deteriorate the race of all the workers who are employed in manufacturing pursuits.

184. If, as is urged by manufacturers in India, textile manufactories cannot be run in India unless the working classes are left without protection at the mercy of their employers, the fact plainly shows that such industries are out of place in that country, and that the people would be better employed upon other pursuits where the enactment of a Factory and Workshop Act would have no chance of preventing them from competing with outsiders. In India there are many such employments which cannot be touched

by European competition—mining, agriculture, plantation and manifold local industries and pursuits—which would be greatly developed by improving the means of communication in the country. In India, railways are still in their infancy; if they were pushed on, as they ought to be, employment consequent to their construction, maintenance, and working would give healthy work to tenfold the number of persons who could ever find employment in textile pursuits. India is an agricultural country which requires opening up by railways, roads, and canals, so as to increase the area under cultivation, enrich the people by the sale of their surplus produce, and save them from the effects of the periodical famines which devastate the country and decimate the people. It is to the increase of irrigation, cultivation, plantation, and mining, and to the spread of works for facilitating the movement of produce and people, that the Government should look for fresh openings for the employment of the working classes and for the future attraction of capital to that country.

185. Every civilised country has been awakened to the necessity of improving the condition of the working classes. All are agreed that factory and workshop legislation is necessary, and that it should be based upon the English Factory and Workshop Act. Legislation is imperatively required for the protection of the working classes in India. India is far away back in the dark ages in matters of sanitation, education, and in all which concerns the amelioration of the condition of the vast majority of the people. In India there are no poorhouses, and but few schools and hospitals; in India the absence of the application of ordinary sanitary rules and the overcrowding in the wretched hovels of the people breed disease, and make the cities the birth-places of pestilence; and in India the bulk of the working classes, through the absence of protective legislation, are forced into the hands of the money-lenders, and are allowed to become the prey of heartless and entirely unscrupulous taskmasters and sweaters. If it is a "sacred truth," as Bentham wrote, "that the greatest happiness of the greatest number is the foundation of morals and legislation," it is surely time that the Government of India took that truth to heart, and set about applying the English laws for the protection of the working classes in our Indian Empire.

MINERAL ROYALTIES.

BY PROFESSOR J. E. C. MUNRO.

INTRODUCTORY.

THE mining regulations of Europe can, in the opinion of competent authorities, be traced back to the rules found in the Roman law relating to land and minerals. In Italy, mineral ore was regarded as "fructus," or the produce of the land, and therefore belonged to the person who by law was entitled to take and enjoy the produce. But all minerals in the provinces were regarded as the property of the State, represented by the Emperor, and could only be worked after permission was obtained. Such permission was granted in consideration of the payment of a yearly tax, consisting of a share of the produce or its equivalent in money. Sometimes the tenant paid a fixed sum, and sometimes a tax proportionate to the supposed value of the mine. The tenant worked the mine by means of slave gangs, who were very harshly treated; but, notwithstanding the supply of slave labour, there is evidence to show that the landowner or the State, and not the worker of the mine, obtained the greater share of the value of the ore raised. Towards the end of the Roman Empire, the landowners seem to have lost any rights they possessed to mines on their property, as any person might obtain from the State a right to search for minerals in land belonging to other persons, and, if minerals were found, a right to work the minerals was granted in consideration of certain payments. Hence we find that in the two great States that arose out of the ruins of the Roman Empire—viz., France and Germany—the right to minerals passed to the Sovereign. The Sovereign, however, might grant his mining rights to other persons, and frequently rewarded his followers by including in grants of land the right of mining. There were many Sovereign princes in Germany, and the peace of Westphalia (1648) recognised the title of such princes to the mines in their dominions, and their right to levy taxes on such mines as they granted to their subjects. As there was no universal mining law in Germany, each prince determined for himself how mining was to be regulated within his dominions, and the result was that there came to be in Germany as many mining laws as there were states.

In France, the kings succeeded in maintaining their title to minerals. Mining was not made absolutely free, but was usually granted on certain conditions to individuals or companies.

In England, we find King John, in 1201, asserting that tin mines were his property, and that all tin miners must pay him a tax; whilst Henry III., in 1262, laid claim to all mines of copper or of gold. These claims, though opposed by some landowners in Devon and Cornwall, were in strict accord with the views that prevailed in Germany and in France. But just as in certain districts in Germany the inhabitants enjoyed a right of free mining, so in England we find similar mining rights existing in the Forest of Dean and other places. The origin of these free mining rights has been traced to the common ownership of land that prevailed in former times in Germany, and was introduced into England by the early German settlers. These customary rights may be regarded as survivals from the time when the rights of the State to minerals had not been fully established. As regards mines in lands owned by private persons, the landowners did not silently acquiesce in the claims of the Crown. At length, in the year 1568, it was decided, in the "great case of mines," that all mines of gold or silver belonged to the Crown, but all other mines were the property of the person on whose estate they happened to be. The judges, however, expressed the view that if *any* gold or silver was found in a mine, whatever might be the ore in respect of which the mine was really worked, the Crown could assert its legal right. This possible claim of the Crown hampered mining industry, inasmuch as small quantities of gold or silver were often found in lead and copper mines, and a series of statutes were passed* which confirmed the right of landowners to all copper, tin, iron, and lead mines in their property, but provided that if gold or silver were found therein the Crown might buy the minerals at the prices named in the statutes. As these prices are very much higher than the prices actually realised for minerals since the passing of the Acts, no case has occurred of the Crown taking advantage of its right of pre-emption.

We have seen that in France and Germany the right to mines vested in the Sovereign, who often granted the mining rights to territorial lords, or to private individuals. Such grantees did not, as a rule, work the mines themselves; generally they leased the mines to third parties. Hence, towards the end of the last century, the exclusive right of mining often belonged to private individuals. The French Revolution, by what was practically an act of confiscation, restored to the State the right to all minerals. The proposal made in

* 3 W. and M., c. 30; 5 W. and M., c. 6; 55 Geo. III., c. 134.

the National Assembly of 1791, that mines should be declared to be at the disposal of the State, was adopted, and formed the basis of the French Mining Laws of July 28th, 1791, and the Code des Mines of April 21st, 1810.

It is not necessary to refer in detail to the other countries in Europe, but it may be pointed out that the State control of minerals re-established in France at the Revolution was adopted in Belgium, and is found in Spain, Portugal, Sweden, Norway, and in the greater part of Italy. England, on the other hand, practically permitted all minerals, except gold and silver, to pass with the land; and, inasmuch as English law is the basis of the legal rules adopted in English-speaking countries, we find that private ownership of minerals prevails in the United States, and in some of our colonies. But, in Australia, the tendency of recent years is to reserve the minerals on making grants of land, as it has been thought that the State may have a greater interest in developing mining industry than the private landowner.

I.—ENGLAND.

In England, the landowner does not, as a rule, work the minerals in his estate; he leases the right of mining to others, reserving certain royalties or money payments. The length of the lease, the amount of the royalties, and the nature of the conditions imposed on the lessee vary in different localities, but all payments are usually proportionate to the amount of minerals obtained. It may be pointed out that there is one very important distinction between a lease of a mine and a lease of agricultural land. A farmer is not permitted to take away any portion of the land of which he is tenant; he is only entitled to the produce raised on the surface of the ground, and he is required on the termination of his tenancy to leave the farm in a similar condition to that in which he found it. But the object of a mining lease is to enable the lessee to carry away the minerals in the land, and the more the mine is worked the less ore is left. Hence a lease of a mine is, from one point of view, a sale of mineral ore in consideration of an annual payment. In very early leases such annual sum was a fixed sum, and had no reference to the amount of ore gained. Mr. Galloway, in his History of Coal Mining, points out that—

> The necessity of making the quantity of coal drawn from the mine bear a fixed relation to the amount of rent paid soon became felt, and as early as the fourteenth century provisions were introduced for this purpose. At first, this was

effected by simply limiting the quantity of coal which might be worked. Thus, in a lease of five mines at Whickham, made by the Bishop of Durham in 1356, it was stipulated that the lessees might not draw from each mine more than one keel (21 tons) per day.

The modern practice of levying a royalty for every ton of ore obtained was introduced very gradually. Professor Sorley* says:—

That as late as 1748 the Marquis of Bute leased extensive tracts of ironstone and coal fields for 99 years, at a fixed rent of £100 a year. When this lease expired the royalty system was adopted, with the result that the total amount paid in the first year under the new system amounted to not less than £20,000.

COAL AND IRON.

(a) Royalties.—A royalty may be defined as a payment made to a landowner for permission to enter on his land and take away mineral ore, such payment depending on the amount of ore worked. The amount of ore is calculated by the ton, as in Northumberland, or by the foot or by the acre, as in Yorkshire. In order to secure the due working of the mine, the landowner inserts in the lease a condition that he is in each year to receive not less than a certain sum in royalties. This sum must be paid, whether the mine be worked or not. In some districts, where the lessee pays in this way for mineral that he does not obtain, he is allowed to work an equivalent amount of mineral in subsequent years without paying a royalty for the same, provided that the total royalty paid is not less than the minimum. Five years is the usual time allowed for this purpose. The following tables, taken from the first report of the Royal Commission on Mining Royalties, give particulars of the dead rents and royalties payable in respect of coal and ironstone mines in England and Wales.

COAL.

Royalties are paid by the ton in the following coal districts:—

	Maximum.	Minimum.	Average.
	s. d.	d.	d.
Northumberland and Durham.....	0 10	2½	5
Cumberland	0 8	3	7
South Staffordshire, Worcestershire, and Warwickshire	0 8	3	6
South Wales—Steam Coal (large) ..	0 9	4	6
,, ,, (small) ..	0 4½	2	3
,, House Coal.....	0 9	4	7
Scotland	1 3	4	9

* Mining Royalties.

Royalties are paid by the acre as follows:—

South Lancashire and Cheshire—per foot thick per Cheshire acre (10,240 square yards):—

Maximum.		Minimum.		Average.
£150	....	£40	....	£72

South Yorkshire—per statute acre, irrespective of thickness:—

	Maximum.		Minimum.		Average.
Barnsley Bed.....	£400	....	£200	....	£275

Per foot thick per statute acre:—

	Maximum.		Minimum.		Average.
Melton Field	£140	....	£80	....	£103
Silkstone.....	£45	....	£30	....	£35
Lidgett.....	£35	....	£20	....	£25
Parkgate	£40	....	£20	....	£30

Derbyshire—per statute acre, irrespective of thickness:—

Maximum.		Minimum.		Average.
£200	....	£30	....	£80

,, per foot thick per statute acre:—

Maximum.		Minimum.		Average.
£40	....	£12. 10s.	....	£27. 10s.

North Wales—per foot thick per statute acre:—

Maximum.		Minimum.		Average.
£35	....	£15	....	£25

In several districts the tonnage royalty is made to vary with the price of coal.

In Northumberland and Durham, sliding scales are being adopted at varying ratios. Speaking generally, a rise or fall of ½d. per ton takes place for every rise or fall of 6d. in the selling price.

In Cumberland, when the selling price of coal exceeds 6s. to 7s. per ton, the royalty is increased by about one-tenth of the additional price.

In Derbyshire, the royalty in some cases rises or falls 1d. for every rise or fall of 1s. in selling price.

In South Wales, sliding scales are making way. At some collieries, when the price of large coal is not over 6s. the fixed royalty is 6d., but when the price exceeds 6s. the royalty varies ¼d. for every variation of 3d. in price.

In North Wales, the principle is being applied to footage royalties, the royalty varying £5 per foot thick per statute acre for every variation of 1s. in price over 6s. per ton.

IRONSTONE.

The royalties on ironstone are as follows, though these royalties in some districts vary with prices:—

	Maximum.			Minimum.			Average.	
	s.	d.		s.	d.		s.	d.
Cumberland Ironstone	0	6	..	0	4	..	0	5
„ Hematite	2	8	..	1	3	..	1	9
North Lancashire Hematite	3	9	..	0	7½	..	1	5
Northamptonshire and North Staffordshire Ironstone	0	6	..	0	2½	..	0	4
Cleveland Ironstone	0	10	..	0	3	..	0	5
North Lincoln Ironstone	1	0	..	0	10	..	0	6
West of Scotland	1	3	..	0	3	..	0	6
Fife and Lothians "Blackband"	2	6	..	1	0	..	1	6
„ "Clayband"	1	0	..	0	4	..	0	5

In Cumberland, the royalty on hematite iron ore always varies with prices. A minimum royalty of 1s. 6d. to 2s. per ton is fixed to cover all mineral worked when the selling price f.o.b. is under, say, 10s. to 12s. a ton. Above this price the royalty varies, so as to give the landlord about one-third of the selling price. In North Lancashire, the sliding scale gives the landlord about one-sixth of the value of the ironstone; whilst in Scotland, ironstone used in the manufacture of pig iron varies with the selling price of such pig iron.

(b) Dead Rents.—Reference has been made to the fact that a lessor of a mine usually stipulates that the lessee will pay him a certain yearly rent whether he works the mine or not, and irrespective of the quantity of mineral raised. The object of such a provision is to secure the working of the mine. In Northumberland and Durham this dead or certain rent is fixed with reference to the area leased, due regard being paid to the possibility of raising a minimum quantity of tons per annum, and it varies from £1 to £1. 10s. per acre of surface area. In South Staffordshire and East Worcestershire the surface area is ascertained, multiplied by the royalty per acre, and divided by the number of years for which the lease is granted. As a rule, however, no fixed principle is followed, and the dead rent is a matter of bargain, or is regulated by custom. In Yorkshire it is as high as £4 per acre, but £1 to £1. 10s. per acre is the usual amount.

(*c*) *Wayleaves.*—So long as the lessee of a mine can convey his coal or ironstone to a railway, or to a port, without crossing land in the occupation or ownership of someone else, the only payments he has to make are the royalties due to the landlord of the mine. But if it is necessary to go through another mine, or over land belonging to a third party, something has to be paid for the right of way. Wayleaves are divided into (*a*) underground and (*b*) overground

wayleaves. When a lease is granted the landlord usually stipulates that the lessee shall not bring coal from another mine, through the leased mine, without an additional royalty being paid. Suppose A to have taken a mine from B, and to have sunk a shaft and worked the mine. Afterwards he takes an adjoining mine from C. It is evident that if he can enter the C mine from the B shaft he will avoid the necessity and expense of sinking another shaft on the C property. But before he can bring from C mine through the B mine he must pay a wayleave to B for bringing the coal from the one mine into the other, and sometimes a shaft rent for taking the coal up the B shaft. This is an example of an underground wayleave. Again, the lessee of a mine may find that the mine is surrounded by property belonging to other landowners. In order to reach a railway he may require permission to cross a portion of such property, and for this he has to pay an overground wayleave. Underground wayleaves and shaft rents together vary from 1d. to 1½d. per ton, and overground wayleaves are sometimes a fixed sum, sometimes a rent of ⅛d. to 1½d. per ton per mile, and sometimes a rent of £2. 10s. to £10 per acre. The amount paid per acre for surface wayleaves often amounts to a very large annual sum. Mr. R. O. Lamb* gives the following instances :—

Landlord A, the acreage occupied, 1 acre 3 roods 2 perches; rent paid, £200; rent per acre paid, £113. 9s. 5d.

136. (Mr. Rhodes.) That is per annum?—Per annum. The same landlord on another estate, 11 acres 3 roods 4 perches; rent paid, £286. 7s. 3d.; rent per acre, £24. 16s. 11d.

137. (Mr. Wood.) Do you say annual rent?—In all instances annual rent. Landlord B, 15 acres 0 roods 1 perch; rent, £1,841. 9s. 6d.; rent per acre, £122. 14s. 3d. Landlord C, 5 acres 3 roods 9 perches; rent, £426. 4s. 4d.; rent per acre, £72. 12s. 4d. Landlord D, 2 acres 1 rood 26 perches; rent, £315; rent per acre, £130. 11s. 4d. Landlord E, 30 acres 0 roods 14 perches; rent, £3,061. 19s. 1d.; rent per acre, £101. 15s. 4d. Landlord F, 2 acres 2 roods 27 perches; rent, £80; rent per acre, £29. 19s. 2d.

Two very opposed views are held on the subject of wayleaves. Some say that the landowner takes an undue advantage of his position, whilst others urge that to the extent wayleaves are reduced or abolished royalties will be increased. The first view may be given in the words of Mr. L. W. Adamson.†

449. Would you be so kind as to give us your views with regard to surface wayleaves?—I think that in each and every instance of which I know the amount demanded is out of all proportion to the injury done to the lessor, or practically to the benefit conferred upon the lessee. I think that the measure of damage, or the measure of payment, should be the amount really of injury inflicted upon the landlord over whose property you have to pass. As a rule, in Northumberland and also in Durham, no wayleave is paid in respect of coal wrought from

* First Report of Royal Commission on Mining Royalties. Q. 135, 136, and 137.
† First Report of Royal Commission on Mining Royalties. Q. 449, 450.

the mine of the principal lessor. Where you have to pass over even a small portion of land belonging to another, he avails himself of your infirmity, or your want to demand utterly unreasonable compensation for the injury done to him. I can illustrate that. Some three years ago I took up this question rather in reply to some correspondence in the newspapers. I then ascertained that my own experience of it coincided in a great measure with the general feeling throughout the county, and the information I then received was derived from those, I believe, in both counties the best able to guide me. I found in one case that for 650 yards of railway the sum of £900 a year was for many years paid. This was in Northumberland. That was a case in which I had no interest. In a matter in which I had interest, with the view of inducing the principal owner of the land over which we passed, and whose coal we did not work at all, I had to go into the question to ascertain best how far I should place the matter before him to induce him to adopt a sliding scale in the shape of a percentage off the amount we were bound to pay. In that, I say I, but I should say the colliery, succeeded. The original amount paid in 1829 for coal passing over this property, which consisted at the outside of about 12½ acres, was 3½d. per ton on all coal passing over the line. Inasmuch as we could not get from the mine at all without passing over some portion of that line, it practically meant 3½d. per ton. That was from time to time modified, and when I took the matter in hand we paid less than 1¼d.; about 1¼d. per ton for large coal, and under 1d. per ton for small coal. I do not think that the mere payment given per ton represents, or would convey to the Commission, the effect of such a charge. I found that we had to pass over some 1,144 yards of line exclusively used by ourselves, and we then could have got on to the North-Eastern system. We then pass over 814 yards of land belonging to another owner, who charges in respect of that £100 per annum irrespective of quantity; but that property is also passed over by the line of another company, and on that line we have simply running powers by arrangement with them. With regard to the third property, which is 682 yards, we also pay £100 a year. Practically, in respect of about 4¼ miles we pay in round figures £1,000 per annum, and I believe the value of that land to be, say, £40 per annum, or £50, perhaps, at the extremest outside.

450. (Mr. Barnes.) Agricultural value?—The extremest outside agricultural value is, say, £50 a year, and if you capitalise that—of course, it is easy—£1,500 would be, perhaps, the extremest value. I may illustrate this further, as to how these wayleaves act as a burden or tax upon the distribution of that which I consider an essential of life, namely, coal. In the case of one company with which I am familiar, and which pays this money each year and every year, the losses on that colliery in about fourteen years, say from 1876, amounted to £16,000 in round figures, and the amount paid for wayleaves alone amounted to practically the same amount of money. It was the placing of these facts before our landlords which induced the principal landlord to make these concessions. If we went on the North-Eastern system we should not have to touch at all two of the wayleave owners, in respect of whom we pay these two £100 a year, but we could not escape the payment to them at all. We have to pay the full amount of wayleave to all three wayleave owners, whether we send the coal entirely by our own line, or whether we only send it over the 1,144 yards.

The following extracts from the evidence of Mr. R. O. Lamb illustrate the view that a reduction of surface wayleaves would increase royalties:—

314. (Mr. Wood.) How would they do so?—A lessee tendering for a mineral field takes into consideration the quality of the mineral, the cost of production, the cost of carrying it to the point of exportation, or to the point of sale,

including all wayleaves that may be eligible, and then he makes up the royalty which he thinks he can afford to pay.—Now, would it signify to the lessee whether there was a heavy wayleave upon that or not, would he not, if there was a heavy wayleave, pay so much less royalty to the landlord?—I think he would.

315. How is it, then, that the lessee would benefit by the abolition of anything like wayleaves?—You see you are speaking now of the cost to a lessee. If a lessee is working his pits constant time under the wayleave system, I believe it is perhaps more favourable to have a private railway than to lead on a public railway, but if you are working, as we did for many years in Northumberland, a little more than half-time, then the wayleave system becomes very oppressive, and the cost of a public railway would be much less than that of a private line.

316. But that would be all taken into consideration in tendering for the minerals, would it not?—Yes, as I said before, no doubt one consideration is the cost of leadage, when the lessor determines the amount that he would fix for his royalty rent, he would consider, no doubt, whether the tenant had to pay a large or small sum for leadage.

To this it has been replied that it is impossible to foresee all the circumstances that arise :—

588A. (Mr. Dale.) Is it within your experience, or are you of opinion that it is not always possible for the individual who is about to become the lessee of a coalfield, to foresee all the dependants that there may be in the working of it upon adjoining properties, or before he commits himself to the lease of the coal for which he is negotiating, to pre-arrange all these surface wayleaves, underground wayleaves, ventilation privileges, drainage privileges, and so on, which he may afterwards find necessary?—(Mr. Adamson.) I am perfectly certain, in taking a colliery lease, as a matter of experience, that if he wanted to treat, in the first instance, for these subsidiary privileges, he would be asked, Have you not got the principal landlord's assent? and practically, without asking what the terms were with the principal landlord, they would, before they gave him any answer whatever, say, It is not worth differing about, it is a mere trifle; stop till you get the place. I think that, practically, would be the effect of it.

The difficulties that surround the question has led to the suggestion of instituting a court to settle all questions of wayleaves where the parties cannot agree.

TIN AND COPPER.

Royalties on tin and copper ore in Cornwall consist, as a rule, of a certain proportion of either the gross produce or of the ore sold. The proportion reserved to the lord varies from $\frac{1}{15}$th to $\frac{1}{24}$th. For instance, the Dolcoath Mine—one of the most celebrated—pays $\frac{1}{15}$th of the gross produce after the $\frac{1}{15}$th is made marketable and fit for sale by the lessees. A minimum rent of from £5 to £100 is generally reserved, but this rent merges, as a rule, in the royalty. For any land damaged, £100 an acre is charged. The amount of royalty received by the landlord depends on the success of the mine where dues are paid in respect of ore sold, but where dues are paid on gross produce the mine may be working at a loss. The Dolcoath Mine, already referred to, has paid its shareholders £806,217 in

profits, the royalties being £259,579. On the other hand, the Wheal Sisters Mine has paid nothing to its shareholders, whilst the royalties received were £1,091. These figures illustrate the great uncertainty of tin and copper mining.

LEAD.

Royalties on lead are generally regulated by a sliding scale. Mr. Percy (Mine Rents and Mineral Royalties, p. 12) gives the two following scales, based on the selling price of pig lead:—

A

Per ton.	Royalty.	Per ton.	Royalty.
Over £20	$\frac{1}{10}$th.	Between £12 and £13	$\frac{1}{14}$th.
Between £17 and £20	$\frac{1}{11}$th.	,, £11 and £12	$\frac{1}{15}$th.
,, £14 and £17	$\frac{1}{12}$th.	,, £10 and £11	$\frac{1}{16}$th.
,, £13 and £14	$\frac{1}{13}$th.	At and below £10	$\frac{1}{18}$th.

B

Per ton.	Royalty. Above drainage.	Below drainage.
Above £21½	$\frac{1}{7}$th to	$\frac{1}{10}$th.
Between £20 and £21½	$\frac{1}{8}$th to	$\frac{1}{11}$th.
,, £19½ and £20	$\frac{1}{9}$th to	$\frac{1}{12}$th.
,, £17 and £18½	$\frac{1}{10}$th to	$\frac{1}{13}$th.
,, £15½ and £17	$\frac{1}{11}$th to	$\frac{1}{14}$th.
,, £14 and £15½	$\frac{1}{12}$th to	$\frac{1}{15}$th.
At and below £14	$\frac{1}{13}$th to	$\frac{1}{16}$th.

GOLD.

As all gold mines belong to the State, it can impose any royalties it pleases as a condition of their being worked. In the case of the Morgan Mine, in Wales, the agreed royalty is one-thirtieth of all gold obtained. It is, however, contended that in the case of gold mines, royalties should be charged on profits in order to encourage the industry. In New South Wales, a lease of gold-bearing land is granted at a rent of £1 per acre per year.

TOTAL AMOUNT OF ROYALTIES.

No reliable statistics exist as to the total amount of royalties received by landowners in this kingdom. Of all minerals in the British Island, coal and iron ore are the most important, as shown by the following table for the year 1888, taken from the "Mineral Statistics of the United Kingdom":—

	Tons.		Tons.
Coal	169,935,217	Copper Ore	15,132
Iron Ore	14,590,713	Tin Ore	14,370
Lead Ore	52,259	Zinc Ore	26,408

If we were to assume that the average royalty on coal is sixpence a ton, the total royalties paid on coal would, for the year 1888, amount to £4,248,380. It would be idle to attempt any estimate as to the total royalties payable in respect of other minerals, as the materials for any adequate estimate do not exist. The investigations of the Royal Commission on Mining Royalties will doubtless result in fairly accurate, though approximate, conclusions on the subject.

ROYALTIES AS COMPARED WITH WAGES.

Mr. A. Hewlett, managing director of the Wigan Coal and Iron Company—a company that has an annual output of about 2,000,000 tons of coal per annum—has calculated that during the years 1880 and 1881, when the selling price of coal was low, 60 per cent of the price of a ton of coal went for wages, 31 per cent for minor expenses, and 9 per cent for royalties. But of the 31 per cent put down for minor expenses, a considerable amount would find its way to the labourers indirectly, since these minor expenses mean outlay for materials, for coal used under boilers, locomotive charges, horses' work, salaries, and depreciation. As a rule, it is estimated that of the price realised for a ton of coal at the pit mouth, 50 to 60 per cent goes directly to the miners.

As regards ironstone, Mr. J. D. Kendall estimates that wages and royalties vary with the price of iron ore, as follows:—

Price of Ore.	Percentage of Price that is received by		
	The Miner.	The Lessor.	The Lessee.
9s. 0d. ..	40 ..	22 ..	14
10s. 6d. ..	35 ..	19 ..	21
12s. 0d. ..	33 ..	17 ..	28
18s. 0d. ..	24 ..	20 ..	39

Further information on this subject is greatly to be desired.

II.—FRANCE.

Reference has been made to the laws passed in France, in 1789 and 1810, under which the State acquired complete control over all minerals. The State, however, is not regarded as the owner of any "property" in a mine; it has only the power of granting to any person the right to work the minerals, subject to the payment of dues. No mines can be worked without a concession granted by State authority. The concession confers on the grantee the perpetual ownership of the mines, independent of and separate from that of the surface. The owner of the mine can sell it or lease it, and on

his death it descends to his heirs. The owner, or concessionaire, after he has obtained the concession, is required to make to the owner of the surface certain payments, which are either proportional to the gross yield of the mine, or are fixed in amount.*

In the basin of the Loire, the proportional payments are from 4¾d. to 6¾d. per ton; in other Aveyron districts it is much less. In the case of fixed payments, the amount varies from ¼d. to ½d. per acre, though in exceptional cases they are much higher.

Apart from payments to the surface owner, the following payments have to be made to the State:—

(a) A yearly rent of 10d. per square kilometre—a kilometre being equivalent to 1,093 yards.

(b) A fixed annual rent of 5 per cent on the net produce of the mine.

(c) One penny additional for every 10d. paid, in order to form a relief fund for those injured by accidents in mines.

Sir Isaac Lothian Bell† considers that 5 per cent on the net produce is equivalent to a royalty of about 1¼d. per ton. If, however, the concessionaire, instead of working the mine himself, lets it out to others, his position is that of an English landlord, and the lessee, in addition to the above payments, will have to pay a competitive rent to the concessionaire.

III.—BELGIUM.

In Belgium, the Mining Law is based on the French legislation. Every person who acquires a right of mining is required to pay to the State the following taxes:—

(1) A fixed tax of 10d. per annum for each square kilometre of the area granted.

(2) A tax of 2½ per cent of the net produce.

(3) A small additional percentage on the above two taxes towards the expenses of the mining department.

The total amount received by the Belgian State under the above heads, for the year 1888, was £15,635, the total value of the minerals raised being £466,090. In other words, the State taxes in Belgium amounted, in 1888, to 3·3 per cent of the value of the net produce. These do not necessarily represent the amount of royalty actually borne by mines in Belgium, since the grantee from the State may sublet the mine at any royalty he can get for it.

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* Reports on Mining Rents and Royalties, 1887. C. 4,998.

† Principles of the Manufacture of Iron and Steel. P. 609.

IV.—SPAIN.

In Spain, any person may apply to the governor of a province for permission to work minerals in a specified plot of ground. The application is advertised, and if there is no opposition the grant will be made of the right of mining in perpetuity. The sole condition annexed to the grant is that the grantee will pay a surface rent equivalent to 1s. 5d. per acre for ironstone, and 3s. 6d. per acre for other minerals, and 1 per cent on the gross production of the mine. The grantee, however, does not, as a rule, work the minerals himself; he sells his right, or he leases it at a royalty per ton. The grantee, in fact, takes the position of the landlord in England, and exacts as high a royalty as he can obtain. In old leases the royalty varies from 8d. to 2s. per ton, and at present the royalty is sometimes as high as 3s. 6d. per ton on ore that is worth 10s. per ton f.o.b. It may be added that Spain reserves the right of granting a title to minerals apart from the surface, not only as regards coal and iron, but also as regards such substances as asphalte, pitch, bitumen, and petroleum; whilst all minerals of an earthy nature, such as slate, limestone, marls, &c., are granted to the owner of the surface.

V.—GERMANY.

In Prussia, no royalties are levied by the State on iron mines; all other mines, as a rule, pay 2 per cent on the value of the produce at the time of output. All mines, however, must contribute to the miners' benefit fund, which provides assistance to miners in the case of illness or accident. The owner of the mine must also compensate the surface owner for any damage he causes to the surface. But, apart from these minor payments, all iron mines granted by the State are free from royalties, whilst coal and other mines pay the above 2 per cent. Sir Lothian Bell regards this 2 per cent as equivalent to a royalty of 1½d. per ton on coal sold at 6s. per ton. There are, however, private mines in Prussia, and the owners of such mines obtain the best rent they can for the privilege of working. As a rule the royalty is one-tenth of the gross produce, but of late years the difficulty of competing with mines that only pay 2 per cent of their produce has had the result of reducing the royalties in private mines. Private mines are liable to contribute to the State 1 per cent towards the expenses of the mining department of the Government.

VI.—AUSTRIA.

In Austria, all minerals are reserved to the State. Any person can obtain a permit to search for minerals in a specified area, and if minerals are found one or more "free diggings" may be obtained. If the miner can come to terms with the proprietor of the surface land, arbitrators are appointed to fix the price to be paid. For each digging of 424 mètres* diameter, the miner pays an annual tax of about 6s. 8d. For the actual working of each mine of 3,597 square mètres, four florins have also to be paid.

VII.—ITALY.

Previous to the unification of Italy the country was divided into several sovereign states, each possessing its own laws. These laws, as far as minerals are concerned, still prevail with certain modifications.

(*a*) In upper and central Italy, as well as in the island of Sardinia, mines can only be worked after a concession is obtained from the Government. Such concession will be granted to any person who can furnish satisfactory evidence of his intention to work the mine at a fixed tax of 5d. per hectare (*i.e.* 2¼ acres), and on condition of paying an income tax on the produce of the mine.

(*b*) In South Italy, if the owner of the soil will not undertake to work a mine, a concession can be obtained by any applicant who possesses the means of undertaking and carrying on the work; but as regards sulphur mines, concessions are granted to owners of the soil only. The taxes paid to the State vary according to the terms of the concession.

(c) In the Tuscan provinces, mines are the absolute property of the owners of the soil.

VIII.—SWEDEN AND NORWAY.

In Sweden, a right to minerals can only be acquired from the State, and the small fixed sum of 10s. 10d. is paid when the grant is made. No royalty is exacted, and the only tax paid is the ordinary income tax.

In Norway similar rules prevail, but the owner of the ground may claim one-tenth share in a mine on his property. No tax is paid for the right of mining, except in the case of alluvial gold.

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* A mètre is 3·28 feet.

IX.—UNITED STATES.

In the United States, minerals belong, as in England, to the owner of the soil. As regards lands belonging to the Government, mineral deposits are open to exploration, and any person may, by following the local customs, acquire a mining claim. Mineral lands are subject to the same taxation as other lands, but no royalties are levied.

In concluding this brief review of mineral royalties in foreign countries, it is necessary to again point out that the amount of taxes paid to a foreign government in respect of mining concerns is not a conclusive measure of the burden of taxation on mines. A heavy income tax is often levied in addition to the mining tax, and substantial contributions have often to be made towards local purposes. Apart from these considerations, the immediate grantee of the mine often sublets, as we have seen, at a competitive royalty.

Mr. R. P. Bromhead * gives a good illustration of how heavy royalties may exist where the State owns the minerals.

> In our case, when I came into the company I found two sets of royalty owners. I found a set of royalty owners under the State, who were paying less than £100 a year to the State for the whole of the mines which we took over. I found that those royalty owners, again, had made an arrangement with some English people for a sort of subletting, and for the creation of an interest under them. I found that the English royalty owners had formed a company, which company I happened to take shares in, and became a director of. I found that we practically had two sets of royalties. First, we had the English royalty owner; second, the royalty to the concessionaire from the State, who only paid less than £100 a year to the State. These royalties became so tremendously oppressive that we had to raise nearly £100,000 to get rid of the English royalty owner, who was sitting upon us like the old man of the sea. We got rid of him. We raised £100,000, and we cleared him off, and now we have the concessionaire, the royalty owner created by the State, in Spain, who is drawing £10,000 a year from the working of our mines, and I will undertake to say that that Spanish concessionaire has never spent £500 over the transaction. The State, which is the theoretical owner of the mine, is not getting at this moment £100 a year for which the concessionaire has got £10,000. That is the operation of the law there with regard to the State ownership of minerals.

The problem of determining how much the Continental lessee pays in taxation as compared with the English lessee is very intricate, and involves a detailed examination of the imperial and local taxation in each country, as well as of the relations between the person who works the mine and the State or person from whom he has obtained the mine. Even if the exact burden on mines were ascertained for each country, many other circumstances would have to be taken into account before a fair comparison could be instituted as regards the position of mining in one country as compared with another.

* First Report of Royal Commission on Mining Royalties. Q. 1,896.

Sir I. Lothian Bell* says:—

I do not know that if you had all the minerals in Germany worked by the original concessionaires it would greatly affect our trade. The policy of the German Government is to prevent, as far as it can, foreign iron being imported into Germany, and they do that by means of a very heavy import duty. I think in the case of steel rails the import duty is about 25s. a ton. Now, supposing we were relieved from the charge of what I will assume to be the royalty payable on that article, 4s. per ton on steel rails, the Germans, probably, would simply put on a duty equal to that amount in order to keep us out of the country, so that in the event of our being excused paying any royalties at all in this country, it might merely end in an increase of the import duties into Germany. I may say that Germany occupies a peculiar position with regard to its iron trade. Here in England, of our total make of iron we export about two-thirds, and one-third is consumed at home. In Germany these quantities are reversed. The Germans consume two-thirds of their make and export one-third, and that one-third they export often at a considerable loss; that is in bad times. But they prefer doing that to laying their works idle. I suppose the German nation does not know it, but in reality it is the German nation who pays for that loss, because they are obliged to pay upon the two-thirds they keep at home for the loss which is incurred on the remaining one-third.

INCIDENCE OF ROYALTIES.

THE following extracts from Professor Sorley's paper on "Mining Royalties" convey a clear idea of the view taken by economists as to the incidence of royalties. It is sometimes said—

That in the case of mines a certain quantity of raw material is removed, and that the royalty is simply a payment for this raw material. . . . But we must not be content with the statement that the royalty is simply a payment for raw material removed. It is necessary to ask what determines the amount of this payment, and its variations. . . . What we must note is this—in the market, mineral of the same quality sells at a definite sum. But this same mineral, as it lay in the bowels of the earth, was sold to *entrepreneurs* (*i.e.*, lessees) at very different sums. . . . The higher royalties are undoubtedly due to the peculiar advantages which particular mines have over the mines which can just be worked at a profit, in the same way as the rent of good farms exceeds that of the worst farm worked. But whilst the worst farm (which suffers no deterioration by working) pays no rent, the worst mine goes down in value with every ton of mineral removed, and therefore does pay a rent or royalty. For every ton of mineral worked, payment has therefore to be made; and the obligation to pay this charge affects the price at which it is possible for the producer (say, from the worst mine) to sell the produce. . . . We are therefore entitled to conclude that, to some extent, royalty does enter into price. The question is, to what extent? The price of the product depends upon the expense of production in the least advantageous circumstances—in the worst mine, that is, which requires to be worked to meet the demand. Such worst mine pays a royalty, and this royalty payment enters into expenses of production, and goes to determine price. Royalties on other mines of the same kind, so far as they exceed this *minimum royalty* (as it may be called), do not enter into expenses of production, and therefore do not affect price. For purposes of illustration, we may suppose that 4d. a ton is the minimum royalty for coal or ironstone. I cannot vouch for the accuracy of the illustration, but I do not think it will be found far from the mark. I do not know of any royalty on ironstone (even in

* First Report of Royal Commission on Mining Royalties. Q. 1,046.

Cleveland) that goes below 4d., and although I have come across two leases in which the royalty on coal is less, one of these at any rate seems exceptional. . . . For every ton of coal or ironstone raised and brought to market, we suppose the landlord to receive 4d. at least—much more from the more fertile mines, not less from the worst mines. The worst mine pays 4d. for every ton it puts in the market. The price of the produce must therefore, in the long run, be sufficient to return this 4d. to the mine worker, as well as his other expenses of production. This sum of 4d. will, therefore, enter into price as a part of the expenses of production. But take another and more fertile mine, producing mineral of the same quality, where the royalty is (let us say) 8d. Does this royalty also enter into price? The answer must be that in this case half the royalty (what corresponds to the minimum royalty) enters into price, and that the other half does not, being a payment to the landlord for the special advantages of this particular mine. Were 4d. struck off the second royalty, the lessee would not reduce the price of his product, nor raise the wages of his workmen. The price would be already fixed by the less favoured mines which had formerly paid 4d., and which could just be worked at a profit—unless, for the purposes of driving these out of the field, he would not reduce prices. The reduction of royalty would simply have the effect of enabling the lessee of the mine to keep 4d. a ton in his own pocket, which he would otherwise have had to transfer to the landlord's. If, therefore, by Act of Parliament or otherwise, we could deduct 4d. a ton from every existing royalty, the produce would be cheapened by that amount. If, by the same authority, we were to forbid the charging a higher royalty than 4d., neither prices would be lowered nor wages raised, but only the lessees of the more favoured mines would be enriched.

Professor Sorley is careful to point out that this theory assumes competition, "equal, unrestrained, and effective," between royalty owners and employers, and that the actual facts will only roughly correspond with the theory owing to three circumstances, viz.:—

The impossibility of predicting the future developments of trade, and the consequent demand for coal and iron; the comparative ignorance of the yield of the mine, and of the difficulty and expense of working it before operations have actually begun; and the custom of long leases, rendered necessary by the large initial expenditure required for sinking the mine.

He also adds that—

The rich mines are usually in the possession of large capitalists, and that it is the large capitalists who have the chief say in determining prices. It would therefore seem that, although the theoretical or normal price is said to be fixed by the expenses of production in the poorest mines, the actual or market price is determined by a competition in which the workers of these poorer mines have but little to say. But, although the workers of the poorer mines do not fix the market price, their existence is an index of the average about which the price oscillates. . . My conclusion is, therefore, that the English system of private ownership of minerals raises the price by the amount of the minimum royalty.

REFORMS.

The Report of the Royal Commission on Mining Royalties will doubtless throw considerable light on the reforms desired in the present royalty system. In the meantime, reference may again be made to Professor Sorley's discussion of the subject. As regards "nationalisation" of minerals, he says:—

MINING ROYALTIES.

A long period of vested rights, confirmed by statutory enactments, has made minerals as much private property as the surface of the soil, or, indeed, as movable estate. Without an arbitrary interference with private right they could not at present be assumed by the State, except by buying out the present owners, and to do this now would probably prove to be a bad investment of the national funds. Besides, it must be remembered that the nationalisation of minerals need have no effect upon mining leases, or upon the price of minerals; it would merely change the owner. The lessees would have to pay a royalty to the State instead of to a private individual. . . . It is true the State, in becoming the owner of minerals, might introduce a reformed method of assessing and levying royalties and other payments that are at present borne by the lessee. But State ownership is by no means a necessary pre-condition of State regulation, and if a case can be made out for the interference of the State, such interference might be introduced here—as it has already been introduced in other departments—without doing away with private ownership.

A little reflection may show that abolition is not any more than nationalisation, the best remedy in the present case. Let us suppose for a moment that we had a Government with so little economic foresight as to abolish royalties, and perhaps so devoid of moral principle as to do so without compensation. What would be the effect? Royalty payments are abolished all over the kingdom; a burden is lifted from industry; every mine is benefited. These are obvious and immediate results, and their consequences are foretold with equal triumph—a lower price, a quickened demand, higher wages. This, however, is but a partial and superficial account of what would happen. It is evident, in the first place, that if every mine is benefited they are not all benefited equally. The South Wales coalfields will receive a bonus in the way of remitted royalty of about 8d. or 9d. a ton, those of Durham and Northumberland a bonus of 4d. or 5d. a ton only. The lessees of the rich hematite mines of Cumberland will find that they may now retain 2s. a ton which they formerly had to pay in royalty; in Cleveland, the lessee will be relieved to the extent of from 4d. to 6d. or 7d. only.

No such drastic remedy as the nationalisation or abolition of royalties is, in the opinion of Professor Sorley, required by the condition of trade; and in view of the ever-increasing yearly output of coal, it is urged that the royalty system cannot be charged with retarding the development of the coal industry.*

The following figures show how the production of coal is increasing:—

Year.	Total production in tons.	Year.	Total production in tons.
1855	64,453,070	1880	146,818,622
1860	84,042,698	1885	159,351,418
1865	98,150,587	1886	157,518,482
1870	110,427,557	1887	162,109,812
1875	131,867,105	1888	169,935,217

The reforms he advocates are as follows:—

1. The calculation of royalties on a sliding scale, so as to rise and fall with prices. Both landlord and lessee would, he urges, under such an arrangement share in the extra profit of good years, and the low profit of bad years.

* First Report of Royal Commission on Mining Royalties. Q. 422—424.

The depression in the coal and iron trades, that continued for many years up to 1889, has resulted in the adoption of a sliding scale in some coal districts.

For a number of years previous to 1888, the Northumberland coal trade was in an extremely depressed condition. In that year, compelled by the depression, we made application to all our lessors to have our rents either permanently reduced or put upon a sliding scale, varying with the price of rent of coals free on board, and in many cases these applications were acceded to. For the first year after these scales came into operation, the price of coal ranged very low, and in that year the result of the sliding scale was that our average rent became about 3½d. per ton. Since that time, and rising with the price of coal, the rent has increased to 6d. per ton. The rate of graduation in these scales is on an average of about one-fourteenth of each advance in price from the standard price and basis rent. All these rents are paid clear of all taxes or deductions, except the landlord's income tax. We pay all local rates, and these, on our total output, amount to about 1½d. per ton. So far as my knowledge and information go with respect to the rest of the collieries in Northumberland, the sliding scale is not universal, but there are several instances during the last three years in which it has been granted. In my opinion, the system of fixing rent by a sliding scale, varying with the price of coal, is fairer to the lessee than the system of a uniform fixed rent per ton, and is also fairer to the lessor. The advantage seems to me to be that, when prices are low, the sliding scale is lower than a uniform rent, while it is higher when prices are higher. When prices are low and the profits are small, if any, a difference in rent is more felt by the lessee, while, when prices are better, the advance in rent which the lessee pays to the lessor is less appreciably felt.*

The adoption of a sliding scale for ironstone has already been referred to. Some coal lessees object to a sliding scale because of the unpleasantness that arises out of the examination of the books. Mr. A. Hewlett† points out that in his early days most royalties, at least in Lancashire, were calculated at so much of the selling price, say one-eighth or one-tenth, but that in time the fixed royalty was adopted.

2. Giving lessees of mines power to work all coal, for which they pay royalties, during any year of the lease.

As regards the large sums exacted for "wayleaves," Professor Sorley does not think that a case has been made out for legal interference; but the majority of the witnesses examined before the Royal Commission on Mining Royalties appear to advocate the institution of a court of arbitration, to decide such questions as the amount to be paid for wayleaves.

In conclusion, reference may be made to the following publications bearing on royalties:—

First Report of the Royal Commission on Mining Royalties.

Mineral Royalties in the Coal and Iron Trades. By Professor W. R. Sorley.

Reports of Her Majesty's Representatives abroad on Mining Rents and Royalties, and the Law relating thereto.

Mine Rents and Mineral Royalties. By C. M. Percy.

* Evidence of Mr. R. O. Lamb. First Report of Royal Commission on Mining Royalties.
† First Report of Royal Commission on Mining Royalties. Q. 2,846.

SOAP.

BY J. E. GREEN, F.I.C., F.C.S.

IN these busy days, when the British public are so greatly influenced by the large advertisers—when the buyers at our various stores, to their cost, know the fickleness of their members as regards this article—when one is almost bewildered by the number of soaps already in the market—a short account of this most valuable and useful article may not be inopportune. And if it should help to clear away some of the prejudices which, in the case of soap in particular, are dearly paid for by those who indulge in them, and show the folly of paying for advertisements, printing, stationery, &c., under the impression that one is paying for soap, the chief object of this paper will have been achieved.

There is, perhaps, no article so useful, so necessary for the general health of the community, so widely used, and yet about which so little is known by the great majority of consumers, as soap. What is it? From whence does it derive its cleansing properties? How long has it been discovered? What was used as a cleansing agency in ancient times? These are questions that will naturally arise. I shall endeavour to answer them; and, in addition, give a short description of the various kinds—their uses and manufacture, with a little advice as to the kinds that should be bought and used for particular purposes.

In all works on the manufacture of soap, in order to understand the theoretical principles involved, a knowledge of chemistry on the part of the reader is assumed; but, as only a few of my readers in all probability will possess that knowledge, I must explain those principles in popular language to be better understood, claiming the indulgence of those who have studied the science, and leaving them to substitute the proper chemical names for themselves.

What is soap? Pure soap always consists of two principles—a *fatty*, or acid principle, and a *mineral*, or anti-acid principle. When these two principles are made to combine in the proper proportions, so that neither shall be in excess, a third body, "*soap*," is formed, possessing properties entirely different to those possessed by the substances used in its formation. A large number of fatty

substances are used, many of which are well known—beef and mutton tallow, lard, bonegrease (the fat extracted from bones), also various vegetable oils, the most common of which are olive oil, cotton-seed oil, palmnut oil, cocoanut oil, and palm oil. The sources of these substances may be almost implied from their names. Palmnut and palm oil are extracted from the kernel and the shell respectively of the palm fruit, cotton-seed oil from the cotton seed, and so on; whilst it is hardly necessary to mention that beef and mutton tallow is the fat of oxen and sheep, and lard the fat of the pig.

Chemically speaking, the *anti-acid* principle may be certain compounds of either of the metals—*e.g.*, if a certain compound of iron were used as the anti-acid principle, an iron soap would be formed; if lead, a lead soap; and so on through the list of metals. But out of all the metals, only two form soaps which are soluble in water, and therefore useful as detergent substances. A discrimination can now be made between the term "soap" as used by chemists, and as used by the general public. In the former case it means a combination of the fatty-acid principle of *any* of the fats with certain compounds of *any* of the metals, the solubility or non-solubility of the resultant compound in water being quite immaterial; whilst in the latter case it denotes a combination of the fatty-acid principle of *any* of the fats with certain compounds of the *two* metals referred to above, which combination *is* soluble in water, and possesses the property of removing grease and dirt in washing.

The two metals are sodium and potassium. The compounds of these, which are used in soap-making, are commonly spoken of as the *alkalies;* and it is the compound formed by the action of either or both of these on any of the fats which is popularly and generally known as *soap*, which soap, I will again remind the reader, differs from all the others in that it is soluble in water and possesses valuable cleansing properties. Soap in this sense, then, I shall speak of in this article; and, in dismissing all the other metallic soaps from our minds, it might be mentioned that, with the exception of lead and zinc soaps, which are used in pharmacy, they are of little or no commercial value, are prepared—if at all—on a very small scale, and looked upon merely as chemical curiosities.

All fats such as have been mentioned consist of various acids of a fatty nature, the most important of which are stearic acid, margaric acid, and oleic acid, combined with the anti-acid glycerine, and, broadly speaking, only differ one from the other by the different proportion of these acids that they contain.

The acids themselves vary in their physical and chemical properties, stearic acid being solid and oleic acid liquid at ordinary temperatures, whilst margaric acid would come between the two. Fats containing a large proportion of stearic acid are hard in texture, such as beef and mutton tallow; those containing a large proportion of oleic acid are soft, like cotton-seed and olive oils. And it must be noted here that, other circumstances being the same, the harder the fat—that is, the more stearic acid it contains—the harder the soap that can be made from it.

In the manufacture of soap, the alkalies, in order that they may become thoroughly mixed with the fats, are dissolved in water. A certain amount of this water is left combined (for various reasons) with the finished soap. The actual amount so left, as will be seen further on, depends on the kind of soap to be produced.

Theoretically, then, soap-making is nothing more than replacing the "glycerine" in fats by an "alkali," and may be well illustrated by the following equation:—

$$\underbrace{\text{Fatty Acids} + \text{Glycerine}}_{\text{Ordinary fat.}} + \text{free Alkali} = \underbrace{\text{Fatty Acids} + \text{Alkali}}_{\text{Soap.}} + \text{free Glycerine}$$

The glycerine set free in this way, which was formerly run away with the soap-makers' waste lyes and lost, is now recovered, and forms a valuable by-product in soap manufacture.

Soap is first mentioned by Pliny, the historian, who lived about the beginning of the first century, and who states that it was an invention of the Gauls; that it was made from tallow and ashes, the best being prepared from goats' tallow and the ashes of the beech tree. He also mentions two kinds of soap—soft and hard. Galen, the reputed author of a work on medicine, about the same period, also speaks of soap as being made from a mixture of oxen and goats' or sheep's tallow and a lye of ashes, strengthened with quicklime.

In excavating at Pompeii, a soapery was found, also some pieces of soap in a good state of preservation. In the works of authors prior to the Christian era, no mention is made of soap. It is true it occurs twice in the Holy Scriptures. In Jeremiah ii., 22, we read, "For though thou wash thee with nitre, and take thee much soap;" and in Malachi iii., 2, "And like fuller's soap." It has been shown by Beckman that the original Hebrew words "borith" and "nether" referred not to soap, as we now understand the term, but to solutions of ashes, which we shall see were frequently used in the place of soap previous to its invention.

Perhaps the most ancient description of washing and bathing is to be found in the "Odyssey," where Homer states that Nausicaa and her attendants washed their clothes by stamping upon them

with their feet in pits in which they had collected water. No mention is made of any detergent substance being used in this case; but it is certain that more than one kind of "fuller's earth" was used by the ancients, and that they utilised the saponaceous juices of certain plants as well as solutions of alkalies. These solutions, or alkaline lyes as they are called, they prepared by burning plants and wood, and dissolving the ashes in water; or by simply making a solution of the alkali itself, it occurring in certain parts as a natural incrustation on the surface of the ground.

Strabo speaks of a natural alkaline water in Armenia which was used by the scourers for washing clothes, and express mention is made of a lye, prepared from the ashes of plants, as having been used in cleaning the oil and wine jars, and the images of gods in the temple.

The cheapest and most common soap-substitute, however, which was used for washing clothes, was the urine of men and animals. When this liquid putrefies, certain chemical changes take place, other compounds of a detergent character being formed. The ancient washers and scourers, in order to obtain a good supply, had vessels placed at the street corners, which vessels were removed when full; and, indeed, so extensive was its use that the Emperor Vespasian made it a source of taxation, which, if we look at urine in the light of soap, may be said to have been the forecast of a soap duty which centuries afterwards proved such a stumbling block, and retarded to so great an extent the development of this great and important industry. This liquid was also used in our own cloth manufactories in comparatively recent times, and was collected and sold under the name of "old lant."

After Pliny, soap is mentioned by Geber, in the second century; and, at later periods, is frequently referred to by Arab writers as being not only used for washing purposes, but also as an externally remedial application.

It is extremely difficult to trace the history of soap to modern times, but it is probable that none was made in England until the sixteenth century; and up to the reign of Queen Anne little or no progress had been made in the methods of manufacture.

In 1711 a duty of 1d. per lb. was levied, which was increased to 1½d. per lb. in 1713. In 1782 a distinction was first made, for taxation purposes, between "hard" and "soft" soaps, the former being rated at 2¼d. per lb. and the latter at 1¾d. The duty on hard soap was raised to 3d. per lb. in 1816, but was reduced on both kinds to 1½d. per lb. and 1d. per lb. in 1833, at which figures it remained until 1853, when it was finally repealed.

Owing to the fact that this duty had been levied on the soap manufactured, and not on that sold, the doors to experiments for improving the art were effectively closed, as, in the event of a boiling going wrong, and having to be remade, a double duty would then have to be paid; and, to make matters worse, this heavy impost was accompanied by certain vexatious restrictions, limiting the manufacturers not only to the size of bars and choice of materials, but also to the mode of manufacture. Another instance of Government interference may be mentioned as interesting. In the reign of Charles I. a "monopoly" was granted to a corporation of soap-boilers in London, a proceeding which led to serious complications, which resulted in the confiscation of the plant and goods of those who objected, and ultimately to their imprisonment.

About the beginning of the present century, the art of soap-making, which, as a result of the facts just mentioned, had been conducted in the crudest possible way, began to attract the attention of scientific men. Geoffrey, in 1741, had discovered that a fatty body of an acid nature could be obtained from a neutral fat; and Scheele, in 1783, in making lead plaster by boiling oxide of lead with olive oil, had obtained a sweet substance, which we now know was glycerine. These discoveries formed the basis of a beautiful series of researches, conducted by the great French chemist, Chevreul, by which he laid bare the constitution of oils and fats, and made known the true nature of soap.

Important as these discoveries were, benefiting, perhaps, the manufacture of candles even more than that of soap, they were greatly enhanced by Leblanc's (another French chemist) discovery of a process for the manufacture of soda from common salt. Until then the alkalies used in soap-making had been imported from the shores of the Mediterranean, where they were obtained by the calcination of the maritime plants which grew there in abundance. Now 100 tons of plants only gave about two tons of alkali, whilst from the same weight of salt (which was cheap and plentiful, the duty having been repealed), by Leblanc's process, could be produced about 60 tons. The stimulus given to the soap trade by this discovery can be easily imagined. Mr. Muspratt, who practically developed the process in England, experienced the greatest difficulty in prevailing upon the manufacturers to try the soda so produced. Many tons had to be given away before he succeeded in convincing them of the advantages that would accrue from its use. The money and time saved, however, was soon felt; and the demand increased to such an extent that, in order to meet it, the soda had to be discharged red hot into iron carts, which had been specially made, and conveyed direct to the factories.

From this time a race was kept up between the manufacture of soap and the production of soda—improvement in one being followed by an extension of the other; and so much did the output increase that, in 1852, Liverpool, in the district where the process was carried on, exported more soap than all the other ports in Great Britain put together.

The soap duty, with its accompanying inconveniences, had so seriously hampered the makers that it was remarked, in the "Juries' Report of the 1851 Exhibition," that there was evidence that the mode of manufacture had not improved, and at that date was very similar to that employed in the reign of Queen Anne. In contrast to the above, however, it is pleasing to note that they also say that the manufacture at that date was more extensive in the United Kingdom than in any other country in the world, and that the quality, judged from the samples then exhibited, compared most favourably with that of all other nations.

From this time, soap-making started on a new phase. The increase of chemical knowledge, which followed the discoveries already spoken of, as well as others, manifested itself in improved methods of manufacture, and led to the introduction of new substances—raw materials—never thought of before. The prejudice of the so-called practical man began to be discounted, and greater attention to scientific principles and chemical theories paid, until at present, in all works of any account, the teachings of science are recognised, and none are counted thoroughly equipped that do not possess their chemical laboratories and thoroughly qualified and experienced chemist.

The introduction of new materials opened up new channels of commerce, and the increased consumption resulted in the creation of new industries and the development of others already existing. On the chemical side, a stimulus was given to the manufacture of oil of vitriol, bleaching powder, and other allied chemicals, all of which are most closely connected with Leblanc's process. On the other side might be mentioned particularly palm and palmnut oils. These were extracted from the palm fruit by the natives on the West Coast of Africa, and it is said that its development contributed largely to the abolition of the slave trade in those parts, so that soap has thus become a means as well as a mark of civilisation.

Before proceeding to a description of the manufacture of soap, it will be as well to consider the theory of its action when in use. The alkalies, carbonate of soda, and carbonate of potash act only slightly upon neutral fats, so that for soap-making it is necessary to strengthen or, to use the technical term, "causticise" them. This operation is effected by adding to their solutions certain

quantities of lime, which, combining with the acid constituent of the alkali, forms carbonate of lime, which falls as a sediment and is easily removed, leaving the alkalies in the caustic state in solution. When in this state they act very powerfully on fats, on the skin, on wool, and on other organic bodies, so that the inadvisability of using soaps which contain an excess of these substances is at once obvious.

Fats and grease do not dissolve in water, but it will be remembered that when brought in contact with the alkalies a combination takes place, and soap is produced, which *does* dissolve in water—a fact which gives us a clue as to the cleansing properties of the solutions of ashes used by the ancients. Most of the dirt which accumulates on our clothes and skin consists of particles of dust held together by small quantities of matter of a greasy nature, and it is this grease which prevents the dirt being removed by water alone. The alkalies contained in these solutions of ashes converted the greasy matter into soap, which dissolved, leaving the particles of dust free, and in such a condition that they could be easily swilled away by the water. The action of the "earths" as a cleansing medium can be just as easily explained. It is not due to any chemical action, but to a property they have of absorbing grease; blotting-paper or pipe-clay would act in the same way.

The mode by which soap itself effects the removal of dirt is not properly understood, but is probably due to various causes, physical and chemical. It is well known that when soap comes into contact with pure water it splits up into an acid soap, which floats in the water, producing a turbidity and free alkali, which dissolves. The alkali thus liberated can act upon greasy and acid substances on the surface which is being washed, and remove them in the manner already explained; whilst the other constituent, the acid soap, may assist by softening and rendering smooth those surfaces, and so lessening their adhesive attraction for fine particles.

The cleansing action of soap, physically, has been to a great extent demonstrated by Professor W. S. Jevons, in a series of researches made in connection with microscopical phenomena, known as the "Brownian movement," of small particles. If clay be stirred up with water and the whole allowed to stand, the clay is very slow in settling; and, if examined microscopically, it is seen that this is due to a peculiar kind of molecular movement of the very finest particles. The amount of this molecular movement, he found, was influenced by the presence of various substances—soap and certain other detergent substances increasing it to an enormous extent. The action of such substances in promoting this movement is, without doubt, an important factor in their cleansing powers.

It has been already stated that the hardness of a soap depends on the proportion of stearic to oleic acid contained in the fat from which it was made. It also depends upon the alkali used. With the same fats, potash always produces a softer soap than soda, whilst water always tends to decrease the hardness—that is to say, of two soaps made from similar materials, the one containing the greater percentage of water would be the softer.

If a soap made from oleic acid and potash, thoroughly dried, were exposed to the air, it would absorb about 150 per cent of water; whilst one made from soda and stearic acid, under similar conditions, would only absorb 8 per cent. The former would be about the consistence of a jelly, but the latter would be quite hard. These facts explain the difference between hard and soft soap. Hard soaps are those made from fats containing a good proportion of stearic acid, with the alkali soda; and soft soaps from fats poor in stearic acid, with the alkali potash.

The amount of water which would be retained by the typical soaps just mentioned, if exposed to the air under ordinary circumstances and for an unlimited time, would be about 10 per cent and 50 per cent respectively; so that soaps containing less than these quantities would on exposure increase in weight, and decrease in weight if they contained more. Nearly all hard soaps contain much more than 10 per cent of water; and it is a well-known fact that they all lose weight and shrink, or pine, as it is said, on keeping. On the other hand, soft soap does not vary much on keeping, for the simple reason that it usually contains about the normal quantity—50 per cent—of water.

It will be well, here, to consider one or two physico-chemical properties of soap which are taken advantage of in its manufacture, being used as a means for separating certain impurities, as well as controlling the amount of water. One of these is the behaviour of soap to certain chemical solutions. Common salt, caustic soda, alkaline carbonates, &c., if present in water would prevent soap from dissolving in such water; or, if these substances were added to a solution of soap, the soap would be turned out from its state of solution, or, in chemical language, would be "precipitated" in the form of small flakes, which would float on the surface of the liquid. This explains the difficulty one experiences in endeavouring to produce a lather with *ordinary* soap in sea water. The word "ordinary" is purposely emphasised because there is a special soap made for use at sea, called marine soap. The fat used in its manufacture consists chiefly of cocoanut oil, which differs from nearly all other fats in forming a soap which is as soluble in weak saline solutions as it is in fresh water. Although there may be many who have not actually experienced this difficulty, there will be very few indeed

that have not noticed it when "hard" waters have been used. In the case of hard waters, it is caused by the presence in them of soluble compounds of lime and magnesia. These compounds decompose the soda or potash soap, as the case may be, to form lime and magnesia soaps, which, being insoluble (and therefore useless for detergent purposes), rise to the surface, forming a scum generally known under the name of "suds." Immediately all the lime and magnesia in these waters has been precipitated in this way, a lather is easily obtained. Hard waters differ essentially, then, from those containing the saline substances mentioned above, inasmuch as with the former only a certain weight of soap has to be wasted before the washing can be proceeded with, whilst with the latter, no matter what quantity of soap may be used, it remains undissolved, and therefore useless for washing purposes. An idea of the amount of waste caused by hard waters may be gathered from the fact that the water supplied to London has a hardness which represents a destruction of soap equal to about 2lbs. for every 100 gallons of water used. In some hard waters a portion of these compounds is kept in solution by carbonic acid. If such waters be boiled, the carbonic acid would be expelled and the compounds precipitated, resulting in the softening of the water, and, at the same time, the "furring" of the vessel in which it was boiled. The best water for washing purposes is rain water, which, being, as it were, distilled by nature, may be looked upon as pure, containing as it does only the merest trace of impurity, gathered in its passage through the atmosphere. The worst is spring or well water, which is nearly always hard, having percolated great thicknesses of lime-stone and other strata.

Having glanced at the theoretical principles involved in the manufacture of soap, the process itself will be better understood. At the outset it will not be inopportune to mention that, as we have seen, improvements were made in that process, so, also, the plant and apparatus employed, improved. The pans or coppers in which the raw materials are boiled were originally very small, and were heated by fire; at present they are of all shapes and sizes, pans capable of turning out from forty to fifty tons being not at all uncommon. Instead of fire, however, the boiling is effected by steam coils placed in the bottoms of the pans, superheated or high-pressure steam being employed when a high temperature is required. The soap, instead of being ladled out by hand into the cooling boxes, is now either pumped out by suitable machinery or the levels are so arranged that it can run off by its own gravity. The cutting and stamping, the making and branding of the boxes in which it is packed, which was formerly done by hand, is now effected entirely by machinery and labour-saving appliances.

SOAP.

The process of soap-making may be classified under several heads, and these, by slight variation of details, still further subdivided; but for our purpose it will be sufficient to divide them into two, which I will call the "hot" and "cold" process. In the latter, the calculated quantities of raw materials, after being raised to the proper temperature, are thoroughly mixed in small pans. A partial combination between the fat and the alkali occurs, and the soap is transferred to the cooling boxes, or frames. On standing, a spontaneous increase of temperature takes place due to the further combination of the materials by which the soap is finished. After two or three days it is ready for cutting. It will be noted that soaps made in this way retain the glycerine originally contained in the fats used in its manufacture. These soaps are not to be recommended, as, owing to the difficulty of exactly balancing the fat and alkali, they are apt to contain a slight excess of either, and in some cases, when the proper temperature has not been obtained, both free (or uncombined) fat and alkali. Free fat in a soap—that is, fat which has not combined with its equivalent of alkali—is objectionable, and tends to give the soap, on keeping, a bad smell, as well as to discolour it; whilst *free* alkali is equally objectionable, attacking the skin and materials with which it comes in contact. This process is chiefly used for the cheaper toilet soaps, the retention of the perfumes used being easier owing to the low temperature employed.

The great bulk of soap manufactured is made by the "hot" process—that is, in pans heated by steam—and is shortly as follows: The fats are run into the pan and the steam turned on; the solution of alkali, or "lye," is then added, but at this stage only sufficient to combine with about nine-tenths of the fats present. On looking into the pan, a thin homogeneous paste is seen, the composition of which is roughly as follows: Soap, containing free fat, 43 per cent; glycerine, 4 per cent; water, 53 per cent. On examining a little when cold, between the finger and thumb, it is greasy and soft, the latter feature being due to the large quantity of water present. In order to reduce this quantity of water, advantage is taken of that physico-chemical property of soap already referred to—the behaviour of soap with saline solutions. Into the boiling mass salt is thrown, which dissolves and precipitates the soap. The steam is turned off, and, on standing, the contents of the pan separate into two layers—the upper consisting of partially-made soap, combined with about 40 per cent of water; the lower, of a solution called "spent lye," consisting of the excess of water removed from the soap paste, the greater portion of the salt that was added to effect the separation, the glycerine, and certain impurities contained by the raw materials. After standing some

time, the spent lye is run off and conveyed to another part of the factory, where it is treated for the recovery of the glycerine and salt.

The soap paste is now boiled again with a stronger lye, and again allowed to settle. This second boiling adds alkali to the uncombined fat left in the soap paste, and at the same time purifies the paste by washing out some of the salt left in it in the previous operation. The half-spent lye is removed, the steam is again turned on, and water added until the contents are again homogeneous—that is to say, show no tendency to separate into liquor and soap. Stronger lye is now gradually run in until this separation does take place, and the boiling is continued for a considerable time to ensure combination of the alkali with the last trace of fat. The soap is now, to use technical terms, "made" and ready for "finishing." The operations just described are the same for all kinds of hard soaps, the "finishing" operation alone varying with the class of soap required. If the ordinary yellow soap is to be made, a certain proportion of "resin" is added just after the first operation. This substance, which gives the characteristic tint and odour to yellow soaps, is the residue left on distilling turpentine. It combines with alkali to form a soap possessing powerful detergent properties. It is not used alone, but incorporated with tallow soaps, as stated above, cheapening and improving them, and forming the well-known yellow or pale soaps, with which all are familiar.

The finishing operation for yellow soaps differs from all others. The soap after being made is allowed to stand all night, the lye run off, and the steam turned on. It then gets light and swells up in the pan, and at a certain point, known by experience, the steam is turned off, and the whole allowed to stand for some days. The contents now arrange themselves into three layers: the top, consisting of a light crust full of air bubbles; the lower, consisting of an impure solution of soap in lye, called the "nigre," and containing all the impurities in the pan; and the middle, about four-fifths of the whole, consisting of finished soap. "Curd soaps," which should contain no resin, and only small proportions of palmnut and cocoa-nut oils, are finished as follows: When made, the open steam is shut off and the boiling continued with fire, or superheated steam; after sufficient water has been driven off, it is stopped, and the lye allowed to settle. Soap, after being finished by either method, is removed into "frames," where in two or three days it is sufficiently cold for cutting. These frames, which are made of cast iron, consist of four plates fitting on a base, and bound together by bolts and nuts, forming a box, the internal measurement of which is 60 inches high, 40 inches long, and 15 inches—the length of a bar—wide. When the soap is quite cold the nuts are unscrewed and the

sides removed, when a solid block of soap weighing about half-a-ton is left standing on the base. The block is cut into slabs at one operation, and the slabs divided into bars, which are piled loosely, and slightly hardened and dried by the exposure to the air they are thus subjected to; they are then piled in bins, and are ready to be branded and packed in boxes for distribution.

The best yellow soaps are made from the finest tallows and resins; the "inferior" kinds, from the nigres of the better sorts and cheaper materials, and always contain certain proportions of a chemical substance called "silicate of soda." This compound is strongly detergent in its character, and lessens the cost of production of the soap; and, although soaps containing it are not to be recommended for toilet purposes, no objections can be raised to their use if the price to the consumer is correspondingly lowered. The best yellow soap in the South of England is known under the name of "primrose," while in the North it is usually "golden pale," primrose being the third or fourth quality.

"Fulling" and "scouring" soaps, for manufacturers, are curd soaps, great care being exercised in their fabrication. They contain no resin or chemicals, and only the smallest quantity of free alkali, all these substances having an injurious action upon the fibres of the materials that are to be washed.

The old-fashioned "grey-mottled" soap, as distinguished from those artificially red, blue, and grey mottled ones which have been introduced in comparatively recent times, is a curd soap that has been framed before all the lye has had time to settle out. On cooling, the small quantities of metallic soaps that are always present, and which are derived from the slight impurities contained by the raw materials, collect together in veins and produce the appearance called "mottling." In finishing for the old-fashioned mottled soaps, if the soap be too dry—that is, if it be boiled too long—it sets before the mottle has had time to form. On the other hand, if the soap be not boiled long enough, and therefore contains too much water, it settles out of the soap into the bottom of the frame. These same remarks apply to the natural marbled or mottled soaps which have been made for centuries past both in the South of France and North of Spain, which have always enjoyed the highest reputation. This mottled appearance, then, being always associated with good economical soaps [as any attempt to increase the amount of water resulted in the disappearance of the mottling], was looked upon, and rightly, as a proof of excellence; but, unfortunately, the public concluded that, because *these* soaps which were mottled were good, all mottled soaps must be good, and the naturally increased demand resulted in the introduction of the artificially mottled soaps alluded to above.

These soaps are greatly inferior to the old-fashioned mottled soaps, as they contain large quantities of chemicals and nearly twice as much water. They are made as follows: The fats, which may be mixtures of tallow and vegetable oils (no resin), and generally contain a certain proportion of palmnut or cocoanut oil, are combined with alkali in the usual way, the finishing operation being the same as that used for yellow soaps. When finished, the soap is transferred to a pan, which is heated by fire or by superheated steam, and, while boiling, has incorporated with it about 25 per cent of its weight of a solution of silicate of soda, the exact amount and strength varying with the fats used. Immediately the soap is in the proper condition for mottling the colouring matter is added, and when thoroughly mixed the whole is transferred to the frames, which are made of wood, and covered up to keep warm—slow, undisturbed cooling being absolutely necessary for this class of soaps, in order to give time for the mottle to strike. It is worth noting that the "mottling," which is very difficult to produce, is a matter of appearance only, the washing power of the soap not being increased by one iota.

Mr. Cross, in his Health Exhibition lecture, referring to this class of soaps, says:—

> The practice of artificially mottling inferior soaps, even though there be not the slightest intention to defraud, is not to be commended. It is difficult to see any useful purpose which it subserves, and it certainly cannot be defended on art grounds. We would more especially instance the blue-mottled soaps, in which the marbling is produced by ultramarine blue incorporated into the soap paste. It requires very little insight to enable the buyer to detect an artificially marbled soap, and, we hope, no further showing to induce him to reject it when detected.

Amongst the cheaper kinds of scented household and laundry soaps may be classed the various "Windsors" and "honeys." These are all made from the yellow soaps by adding to them, whilst still hot and fluid, the proper perfumes, as well as small proportions of the chemicals already referred to. Best honey would be made from the best yellow soap, and common honey from the inferior kinds. Carbolic, cold-water, paraffin, and all brown soaps are generally inferior yellow soaps coloured, and to which have been added the various scents and chemicals, according to the kind of soap required.

The so-called "self-washers," the various "cleansers," with their remarkable names, and still more wonderful—according to the advertisements—cleansing powers, are simply the yellow soaps again, in which more or less of the tallow has been replaced by vegetable oils; these oils, as we have already seen, producing soaps which dissolve easily in water, and consequently lather more freely. Of all

the advantages claimed for them, we are bound to admit that they do lather freely, but as to that being a real advantage to the consumer is open to doubt.

With the users of these soaps one contrasts the thrifty housewives of former times, whose aim was not to have a soap which would lather freely and waste, but exactly the opposite, and who, in order to gain this end, purchased a few bars at a time, to cut up and store in a dry place that they might be hard and economical in use. It is not the quality of these soaps which sells them, but the advertising. Instances could be given of soaps, in many ways superior to the "puffed-up" ones of the present day, which have died out simply because the advertising was decreased or discontinued; and I am strongly of opinion that when the public see through this, and begin to take note, not only of the lathering capacities of these soaps, but also of their prices and lasting powers, they will return to the old-fashioned grey-mottled and yellow soaps, which it were better they had never forsaken. In passing on, I would just add that extensive advertising of a soap is always accompanied either by a high price, as compared with that of others, or else by the soap itself being of an inferior quality. These soaps are usually cut into 1lb. pieces, and stamped and moulded by machines into the required shapes—all this extra manipulation, of course, adding to the cost of production, but by which the consumer is not benefited in the least.

We now come to the finer "toilet soaps." These are nearly always made into small tablets, about 4ozs. in weight, and intended exclusively for the toilet, their price precluding their use for laundry or scouring purposes.

There are three methods for preparing these soaps, depending on the quality to be produced. For the commoner kinds, yellow soap is the basis. It is usually remelted in suitable pans and subjected to the same process that has been described for the honeys and Windsors, a greater variety of perfumes and colours, and of better quality, being used. The intermediate quality of toilet soaps are those made by the cold process, which has already been described.

In the fabrication of the "finest" toilet soaps, valuable machinery is used. The basis is a soap made from the purest and best materials, usually tallow and lard. The soap is first cut into shavings and dried; the dried shavings are passed through a mill, where they come in contact with the colour and perfume, which are added at this stage. After repeated running through the heavy rollers, the coloured and perfumed soap paste is passed on to another machine, where it is subjected to a great pressure and formed into bars, which are subsequently cut and stamped into tablets. Soaps made in this way are called "milled soaps;" they are extremely hard, well finished, and, as a rule, perfumed with the most costly scents. It is

only recently that English makers have taken up the manufacture of these soaps, although on the Continent they have been made for many years.

Transparent soaps may be classed under two heads, the "very good" and the "very bad." In the preparation of the former, good yellow soap is partially dried and dissolved in alcohol, the saline impurities, which are always contained—though in very small quantities—in the best manufactured soap, being insoluble in that liquid, subside and are easily removed. The solution of soap in alcohol, thus purified, is transferred to a still, and the alcohol distilled and recovered to be used over again. The hot soap which is left behind is poured into moulds, where it cools to a semi-transparent solid, which, by keeping at a slightly elevated temperature for some months, ultimately becomes perfectly transparent. When in this state the blocks are stamped and polished, and are ready for distribution. The soap used in the fabrication of transparent soaps should not contain any free alkali, as this substance is soluble in alcohol, and would be found in the finished soap.

The "very bad" transparent soaps are made by a cold process, the fats employed being tallow, cocoanut oil, lard, and castor oil. These are mixed with the proper quantity of alkali—sugar, alcohol, and glycerine being added to increase the transparency. The difference between the two kinds is well seen from their analyses.

No. 1.—Good Transparent.

Actual Soap	Fatty Matters	72·63 %
	Combined Alkali	7·22 „
	Free Alkali	·06 „
	Glycerine	5·00 „
	Water	14·69 „
		99·60 „

No. 2.—Bad Transparent.

Actual Soap	Fatty Matters	48·00 %
	Combined Alkali	6·40 „
	Free Alkali	2·00 „
	Sugar and Glycerine	20·00 „
	Water	23·40 „
		99·80 „

The soap of which No. 2 is its analysis is quite unfit for toilet purposes, containing as it does so large an amount of free alkali, the deleterious effect of which is greatly increased by the fact that the great solubility of this soap, due to the presence of the sugar and glycerine, renders a larger quantity of the alkali available than would otherwise be the case.

In addition to the soaps already enumerated, there are any number of the so-called medicated soaps. These are simply ordinary soaps with which have been incorporated the various curative agents from which their names are derived. In many of these, however, the additions are present in such small quantities that they are ineffective for good or evil, whilst in others they are entirely absent. Mr. Allen, in his excellent work on "Commercial Organic Analysis," gives a good example of this latter fact. He says:—

Special virtues are publicly claimed for a certain soap which is said to owe its alleged curative properties to an admixture of milk and sulphur. Neither of these bodies is really present in the soap, which, on the other hand, contains a large admixture of China clay and a most objectionable proportion of free alkali.

Mr. J. L. Milton, the senior surgeon to the St. John's Hospital for Diseases of the Skin, is strongly of opinion that the employment of any drug or medicament in the form of soap is a grave error, and gives as his reasons—

1. That there is no disease of the skin which can, without the aid of proper internal treatment, be removed by any one substance, or any combination of the substances used to medicate soaps—sulphur in itch and trifling cases of ringworm excepted. 2. That in the use of these soaps the application is soon necessarily washed off again, whereas experience showed that for external applications in cutaneous diseases the great point was to keep them as long as possible in contact with the skin, and to disturb them as little as possible.

Sir E. Wilson, Dr. Tilbury Fox, and other eminent authorities were unanimous in their opinion that the best soap for delicate or disordered skins was the one that was the most free from admixture with substances of any kind or description. Now, the unscented, uncoloured, transparent, and milled soaps are the purest, and should therefore be used by persons affected as above; but the medicated soaps (which, as a rule, are very expensive) should be used, if at all, with great care, and only under medical direction.

"Dry soaps," "washing powders," and "soap powders" are simply mixtures of certain detergent chemicals and ordinary soap which have been dried and powdered. The various shaving soaps and creams are potash soaps variously tinted and perfumed, and the so-called "soap essences" are usually solutions of soft soap in alcohol.

In the manufacture of both candles and soap the substance "glycerine," only a few years ago, was thrown away as a waste by-product. It has already been stated that it is a constituent of nearly all natural fats, and that in the process of soap-making it is set free when the fat comes in contact with the alkali, and runs away with the spent lyes. The great development in its use, however, and its high price, naturally drew attention to these waste "lyes," and resulted in the invention of various methods for its recovery from them. The process, roughly, is as follows: The spent lye is concentrated in suitable vessels by boiling, until the salt begins to

crystalise out; this strong brine is then used instead of fresh salt for cutting another pan of soap, the spent lye from which will, of course, be twice as rich in glycerine. This may be repeated until the lyes contain a good proportion; they are then concentrated and treated with certain chemicals, by which the resinous and albumenous matters originally contained in the raw materials are precipitated, and any free alkali neutralised. After the separation of these impurities the lye is boiled, and the salt which precipitates from the concentrated solution removed and dried for further use. The boiling is continued until the liquid contains about 90 per cent of glycerine, the other 10 per cent being saline matter, chiefly common salt; it then resembles treacle somewhat in appearance, and is sold as "crude glycerine." The pure colourless quality is obtained from the crude by decolourising it with animal charcoal, and subsequent distillation often several times repeated.

Glycerine is now used for many purposes. In pharmacy; for keeping moist certain substances, such as tobacco, modelling clay, paper for printing, adhesive gum, &c.; also in spinning, rope-making, and tanning. It is also used for lowering the freezing point in meters, and to a large extent in the preparation of other chemical products, such as "nitroglycerine" and "dynamite." The enormous development in the use of this substance is so recent that out of a total production of 9,000 tons in the year 1878, as estimated by Riche, in a report on the Paris Exhibition of that year, England's share was only about 300 tons; whilst now, only twelve years later, this quantity could be turned out by either of our large works.

The differences between the various soaps now in common use may be seen from the following typical analyses. The retail price per pound as sold is also given, and if these be compared, as well as the analyses, there should be little difficulty in coming to a conclusion as to their respective merits.

No. 1.—Best Yellow.

Actual Soap, 69·50 %	Fatty Matters	62·30 %	3d. per lb.
	Combined Alkali	7·20 „	
	Free Alkali	·20 „	
	Water.....	30·10 „	
		99·8 „	

No. 2.—Inferior Yellow.

Actual Soap, 51·10 %	Fatty Matters	45·30 %	2½d. per lb.
	Combined Alkali	5·80 „	
	Free Alkali	·30 „	
	Silicate of Soda	1·40 „	
	Water.....	46·80 „	
		99·60 „	

SOAP.

No. 3.—Old-fashioned Grey Mottled.

Actual Soap, 72·9 %	Fatty Matters	65·70 %	3d. per lb.
	Combined Alkali	7·20 „	
	Free Alkali	·80 „	
	Water	25·80 „	
		99·50 „	

No. 4.—Red, Grey, or Blue (artificially) Mottled.

Actual Soap, 50·80 %	Fatty Matters	45·80 %	2½d. per lb.
	Combined Alkali	5·00 „	
	Free Alkali	·20 „	
	Silicate of Soda	1·90 „	
	Mottling	·70 „	
	Water	46·00 „	
		99·60 „	

No. 5.—Good Transparent Soap.

Actual Soap, 79·85 %	Fatty Matters	72·63 %	1s. 6d. per lb.
	Combined Alkali	7·22 „	
	Free Alkali	·06 „	
	Glycerine	5·00 „	
	Water	14·69 „	
		99·60 „	

No. 6.—Milled Toilet Soap.

Actual Soap, 91·20 %	Fatty Matters	82·50 %	1s. per lb.
	Combined Alkali	8·70 „	
	Free Alkali	·08 „	
	Water	8·60 „	
		99·88 „	

No. 7.—Inferior Transparent Soap.

Actual Soap, 54·40 %	Fatty Matters	48·00 %	5d. per lb.
	Combined Alkali	6·40 „	
	Free Alkali	2·00 „	
	Sugar and Glycerine	20·00 „	
	Water	23·40 „	
		99·80 „	

No. 7 we can dismiss at once as being not only quite unfit for the toilet, for the reasons already given, but also inferior and more expensive than either of the others for laundry or scouring purposes. These common transparent soaps should be studiously avoided. They may be recognised by their effect on the skin, by a tendency they have of rapidly disappearing in hot water, and by the fact that, as a rule, they are stamped 6d., sold at one penny, and do not exhibit the manufacturer's name.

For toilet purposes, pure and simple, we will compare Nos. 1, 5, and 6. The inferior yellow and the two mottleds are unsuitable, owing to the rather large amounts of free alkali and silicate of soda they contain. The essentials of a good toilet soap are that it should be well made from good materials, and contain as little free alkali as possible. Now, best yellow soap, as well as the milled and best transparent soaps, is made from the finest materials; it is true that generally it contains more free alkali, but the difference in the amounts available, when the soaps are used, is so slight that it would not be detected by one individual in a thousand. Again, it is seen that the amount of actual soap in the milled and transparent soaps is about 20 per cent more than that contained by the yellow soap; but this advantage is counterbalanced over and over again by the fact that the prices, instead of being increased in the same proportion—20 per cent—are increased no less than 300 per cent in the one case and 500 per cent in the other.

For those who suffer from skin affections, or those who really have very delicate skins, and to whom, consequently, the price is not so much a consideration, these finest toilet soaps—Nos. 5 and 6—might be recommended. But for the general body of consumers, including those who fancy they have tender skins, to whom the price is a consideration, the "best yellow" soap is all that could be desired.

For scouring and laundry purposes we must now leave out Nos. 5 and 6, on account of their high prices, and compare the yellows and mottleds. They are all four suitable for these purposes, the presence of a little free alkali and silicate of soda being rather an advantage than otherwise. It will be noted that the "inferior" yellow soap and the artificially mottled soap contain less actual soap than the "best" yellow and the old-fashioned grey-mottled soap, but as the prices are correspondingly reduced no advantage can be claimed on that score. Taking the prices into consideration, then, there is little to choose between them, and the choice would depend on the particular work for which they might be required. For the cleansing of very dirty floors and greasy coarse clothing, the inferior yellow or mottled soaps could be used, especially if the water were hard; but for lighter work, and the better class of linen, the "best" yellow soap should certainly be preferred.

It is seen, then, that, taking price and quality into consideration, the most suitable soap for all purposes is the "best yellow;" for heavy work, in hard water, the mottled soaps, especially the old-fashioned grey mottled; whilst for those persons with really delicate skins, the finest transparent or milled soaps, as free as possible from perfume, colour, and other extraneous substances.

In conclusion, a few remarks as to the location, prospects, and other considerations relative to the soap trade may not come amiss. The industry is not localised in any one part of the British Isles, large factories being found in most of the principal towns. From the beginning of the present century the number of soap-makers, owing to the gradually extending operations of the larger manufacturers, has steadily decreased. In 1801 there were 624; in 1811, 520; in 1845, 356; and at present about 250. On the other hand, the weights of soap, both manufactured and exported, have steadily increased. The amount exported in 1860 was 9,700 tons, this increased to about 17,000 tons in 1880, whilst last year the amount was no less than 24,669 tons. The weight manufactured in 1853, when the duty was repealed, was 1,600 tons per week. Since the abolition of the duty it is difficult to form an accurate estimate of the soap trade, but it has been given on good authority that this output was nearly doubled in 1870, and in the year 1881 Professor Roscoe estimated it to be quite 5,000 tons per week. England now makes more soap than any other country, and, as nearly all the raw fatty materials are imported, this must be attributed almost entirely to our pre-eminence in the manufacture of the other constituent of soap—caustic soda.

It is highly probable that, in addition to our being the largest manufacturers, we are also the largest consumers, seeing that our exports are only about 10 per cent of our output; and, if this be so, we can, according to Liebig, consider ourselves the richest and most highly-civilised people on the face of the earth. Perhaps I cannot do better than conclude this paper, which at the best is only a very brief and crude sketch of this important industry, by repeating his oft-quoted remarks that—

> The quantity of soap consumed by a nation would be no inaccurate measure whereby to estimate its wealth and civilisation. Of two countries with an equal amount of population, we may declare, with positive certainty, that the wealthiest and most highly civilised is that which consumes the greatest weight of soap.

THE RECENT HISTORY OF INDUSTRIAL PROGRESS.

BY ROBERT SPENCE WATSON.

THE present is a time of industrial unrest. Our daily papers teem with tales of strikes, labour difficulties, new associations of employers or employed; and our magazines and reviews abound with articles upon the different aspects of that which we speak of as "the labour question." There are good and sufficient reasons for the turmoil and agitation which so many men regard with feelings of dismay almost approaching to despair, and I shall endeavour to point out some of these reasons in this paper. But the labour question is an old one, and the present difficulties take their rise in the far past, and we must glance backwards, however hurriedly, if we are to make any approach to a proper appreciation of them. At the best, a paper dealing with such a subject as this can be but a sketch, and it performs its task if it stimulates the inquiry and research which will enable those who are interested to master the matter for themselves.

The labour question is the direct outcome of industrial progress, and, as we know it, it is the result of the vast industrial change which, speaking very generally, began towards the end of last century, when the factory system suddenly superseded the domestic system of manufacture, in consequence of rapid scientific discovery applied to the immediate service of mankind—the discovery, in fact, of methods of utilising the processes or resources of nature.

I wish especially to emphasise the suddenness of that leap into industrial life, because it is an important factor in the question which we have to consider. Between the middle and the end of the eighteenth century there was a complete industrial change—a revolution, a re-formation. It seems almost as the passing from death into life, but it was really an awakening.

All progress, in whatever department it may be, is closely allied, and may be spoken of in a general way as the progress of developed thought. Not to go back to the time when the Church and State alike held the human intellect enchained, but beginning our survey when

the fetters were being gradually strained to breaking point (chiefly by the influence of Arab enlightenment), we find long periods of what seems mental stagnation alternating with brief and brilliant times of discovery or invention. Really there is no stagnation. The eruptions of the volcano are the work of the times of apparent rest. Each fresh discovery or invention prepares the way for its successor, however long the interval between them. Perhaps, as affecting our immediate purpose, the earliest in point of time, and the most pregnant with industrial possibility, was that of the mariner's compass by Flavio Gioja, of Amalfi, early in the fourteenth century, for through it maritime discovery became possible, and commerce entered upon a new and vastly-extended career. But before Gioja was born, that great Englishman, Roger Bacon, the father of scientific investigation for our land as truly as Caedmon was the father of its poetry, had invented and made gunpowder, although its application to warfare dates from the fourteenth century. Brute strength thus lost supremacy in favour of trained skill, and mind triumphed emphatically over matter. And then a century and a half passed away before the next great invention—that of printing from moveable types—and blue books, newspapers, public libraries, and "Co-operative Wholesale Societies' Annuals" became ultimately possible. This was in 1455, but shortly after that time the invention of the compass commenced to bear fruit, for the great era of geographical discovery had begun by Christopher Columbus sailing bravely and resolutely into the unknown sea, and landing at San Salvador, in the West Indies, on the 12th October, 1492. In 1497, our own Sebastian Cabot sailed from Bristol, and navigated the coast of North America from Hudson's Bay to Florida. In the same year Vasco di Gama doubled the Cape of Good Hope, and, landing in India, showed the sea-road to the East Indies. Vasco Nunez de Balboa was the first to see the Pacific Ocean in 1513, and in 1519 the intrepid Magelhaens began that voyage which he was not destined to complete, but which, for the first time, achieved the circumnavigation of the globe.

This splendid outburst of discovery had many and far-reaching consequences. It involved, indeed, the re-formation of the world, geographically in the first place, commercially in the second; it had a mighty influence upon thought, religious as well as intellectual; and in social and political matters we cannot, four centuries afterwards, say certainly to what it gave birth, for the work even now goes rapidly forward. And yet commerce, and commerce alone, lay at the bottom of all this great endeavour. These men, mighty discoverers, who "sailed beyond the sunset, and the baths of all the western stars," had trade, prosaic business, and that only, in their minds. A shorter route to the East Indies than those by the Red

Sea or the Persian Gulf, a new way to the Spice Islands—these were the objects which led men to defy the terrors of the unknown, to set aside the teachings of the fathers, and which have enriched the history of man with the record of courage and perseverance so noble as to exalt the entire race of men.

There is a doubtful side and a dark side to these noble exploits as to all human endeavour. Other men, for other and Eastern peoples, had made many of these discoveries in earlier days; and, after the great discoverers of the West, mis-called religion stepped in to do work of which hell might have been ashamed, but the discoverers themselves knew nothing of either their predecessors or their successors. They were independent explorers, and their work was nobly done. Trade has produced heroes of even sterner and truer stuff than war.

We have another period of silence following the great era of discovery—silence so far as invention or discovery immediately bearing upon industrial progress is concerned—but a period of the greatest importance in the development of intellectual progress, and of the greatest industrial importance when purely scientific discoveries came to be thoroughly understood and applied to the direct service of man. Copernicus received the first impression of the work, in which he gave the world a new theory of the universe and laid the foundations of modern astronomy, upon his death-bed, in 1543. At that time Vesalius was laying down the lines of modern anatomy, and Gesner was making the first attempt at a scientific classification of plants, and giving both botany and zoology a new start. In 1584, Galilei discovered the pendulum, which had been known to the Arabs long before; and the telescope, barometer, thermometer, air-pump, and microscope, followed each other in quick succession in the seventeenth century. Quiet, patient, steady investigation, chiefly in the realms of astronomy, physics, and biology, leading at times to such grand results as Harvey's discovery of the circulation of the blood, or Newton's theory of gravitation, was the order of the day. The eighteenth century saw a wonderful development in scientific research; and, whilst the old departments made marvellous progress, new departments of geology and chemistry were added to the world of knowledge—departments which were destined to have an amazing effect upon industrial progress. But, as yet, the very idea of industrial progress in connection with this work of discovery was unknown. It was with scientific knowledge as with geographical discovery. In each case there was an old world; in each case the explorers traversed the unknown to find not an enlargement of the old world, but "new heavens and a new earth." But, in each case, long years—nay, long centuries—were to elapse before those for whom the new land was discovered should enter in and occupy it.

Thus, then, though the stagnation was only apparent, though the intellectual life was continuous and real, though the weapons were slowly and steadily being forged which should one day give man the mastery over many of Nature's processes, though there has ever been a "gradual entrance into Nature's deep resources," there was no mechanical invention of surpassing importance, no great discovery bearing immediate industrial fruit, from the era of geographical discovery to the time of James Watt, and then there was a sudden and unprecedented leap into industrial life.

Most men are familiar with the general features of that leap, and have noted how all things seemed to work together for the purpose of increasing industrial progress by means of extended manufacture. The woollen trade was the staple trade of England. The art of weaving woollen cloth was introduced from Flanders in 1331, and from that time there had been but little change of method or machinery until the eighteenth century. Adam Smith says that, although there had been a gradual perfecting of the machinery employed, there had only been "three capital improvements"—the exchange of the rock and spindle for the spinning-wheel, the use of machines to facilitate and abridge the winding of the worsted and woollen yarn, and the employment of the fulling mill for thickening the cloth instead of treading it in water. He omits the invention, in 1738, by Kay of Bury in Lancashire, of the fly-shuttle, which, being worked both ways with one hand, doubled the amount which a weaver could do, and which was the first of the great inventions which revolutionised the woollen industry. That industry was to feel the great force of the industrial movement, but the cotton trade, which was yet so insignificant as to be only once incidentally alluded to by Adam Smith, was to benefit even more than it, and was far to surpass it in importance. In 1764, the English exports of cotton were of the value of £200,000, and only one-twentieth of the then woollen exports; but in 1888 they were of the value of £60,000,000, or nearly three times that of the then woollen exports.

Twenty years sufficed for the group of marvellous discoveries which upset the old social order of England and began that period of industrial progress which has continued to the present day, and the last twenty-five years of which make in themselves an era of change and growth without precedent in the history of mankind. Stephen Arkwright patented the spinning-frame in 1767; two years later James Watt patented the condensing steam-engine; the next year (1770), Hargreaves patented the spinning-jenny; Samuel Crompton sold his secret of the spinning-mule in 1779; and Dr. Cartwright completed his power-loom in 1787, and, by so doing, gave the finishing touch to the ruin of the handicrafts-men in two great industries, but also to the enormous development of both industries to the ultimate benefit of the world at large.

But the breath of life was breathed into the whole of these inventions by Messrs. Boulton and Watt, who applied their steam-engine to the manufacture of cotton in 1785. And now, as a great demand sprang up for the new machines and for engines to work them, more iron was wanted. Already sea-coal was supplanting pit-coal in the manufacture of iron, and, in 1784, Cort discovered the method of puddling iron, and in eight years the quantity of iron manufactured had nearly doubled.

Compared with what the last quarter of a century has shown us, all that has gone before sinks into something like insignificance; but, compared with anything which had been known previously, the twenty-five years, from 1790 to 1815, mark a progress in production which is quite astounding, and each succeeding period of similar duration has seen a development of the process. The old world, towards the middle of last century, seemed slowly to shake itself free from deep, prolonged, and peaceful sleep, and it has gradually grown wider and wider awake until we may reasonably suppose that its eyes are, at length, really open.

For, when once the reign of discovery had fairly begun, it continued. This was no sudden flash which should die out as rapidly as it came, leaving the darkness which it had made visible but the blacker behind and around it. It was the dawning of a day of brightness and hope mingled with storm and stress—the beginning of a new era in the history of mankind. As yet, those whom we look up to as the most prescient have scarcely caught a glimpse of that which it will reveal in the fulness of time. We, who have lived in the midst of the turmoil occasioned by the change, and have felt the full force of the violent throes, the great and prolonged social convulsions, which inevitably accompany the breaking up of the old order as it yields place to new, have been, as it were, blinded by the dust and stour around us, have had enough to do to keep our heads and feet, and have been little able to reflect upon the whence these things came and whither they may tend. In this paper I shall try to discover something bearing upon these points in especial reference to the last twenty-five years, which have been the most remarkable of all, and we shall see incidentally how not only have commerce and manufacture grown and spread throughout the world, but how, at the same time, and as the direct and inevitable consequents of expanded trade, social equality, social freedom, intellectual life, the acknowledgment of brotherhood amongst men, the progressive union of peoples for general ends, and the maintenance of individuality for particular purposes, have advanced and expanded in every direction.

Let it be clear from the outset that I do not ignore the evil which is always attendant upon good, and which is often so strongly in evidence that men are ready to doubt whether "the knowing ill" is

not too high a price to pay for the "knowledge of good." I will try "nothing to extenuate" whilst I "set down naught in malice." In the early part of this century, when the full force of the vast upheaval was felt, the wretchedness and despair of the working class was great and justifiable. The old moorings were loosed, an unknown ocean spread before them, and they drifted aimlessly, knowing not whither. The inventions were in the hands of the masters; the law was at the back and beck of the masters; "everything was made subservient to the interest of the masters, and exclusively too;" the workers were underpaid and overworked; women and children of tender age were driven and beaten to labour from early morning through the long day and far into the late night; starved, stunted, crippled, and diseased in body and in mind; and all that the State did was to shut out every door of hope, to prevent any attempt upon the part of the workers to better their condition, to goad them to despair, and to imprison or shoot them down when their agony grew too great to be borne in patience.

It is difficult for us to believe that in the lifetime of our middle-aged men, but half a century ago, little children, from four years of age and upwards, laboured in the dark and noisome mines for fourteen and sixteen hours in the day, and even longer; little children worked in the great woollen and cotton mills from five o'clock in the morning until nine at night; little children, in this merry and free England of ours, were bought and sold, as though no Lord Mansfield had ever declared that a slave could not breathe our English air, for, if he once inhaled it, he became thereby a free man.

And the wages for which they worked! It was rather better in the coal mines where the youngest child got 1s. 6d. to 2s. 6d. a week for the long hours, and where the hewers also, for the long hours, rose to 21s. or 22s. a week; but in the factories the variations of wage were great, and in Manchester, during 1847, the year which saw the Repeal of the Corn Laws, male card-room workers made 7s. 9d. and female workers 3s. 4d. a week of from 90 to 100 hours; spinners and piecers, 6s. 10d.; power-loom weavers, 4s. 10d.; and mechanics, 18s. a week. In better years the wages rose until they were nearly twice as great, but 13s. 8d. was the highest amount earned by the most experienced mill hands between 1844 and 1849, and 22s. 4d. the highest wage for mechanics, and that was for the long hours.

Professor Leone Levi states that, between 1850 and 1883, whilst the working hours of a week fell to 56½, there was an increase in wages in the cotton trade all round, averaging, according to the nature of the employment, from 16 to 65 per cent.

I shall not go further into the condition of the working class, excepting to point out that, whilst the hours of labour were long and the wages of labour small, the other conditions of life were

sadly against the worker. Always, then, it was true that "the destruction of the poor is their poverty." There was no general system of education; conveyance was costly and slow; many articles of constant use, and which we look upon as amongst the necessaries of existence, were heavily taxed and dear; co-operative distribution was yet in its extreme infancy, and the working man, who must buy his weekly goods in small quantities, had to pay more for very inferior articles than the rich man who dealt largely with large firms and got better things at a lower price. Some things have really risen since then, but most have fallen greatly. Rents are undoubtedly higher, or, in other words, rent absorbs more of the weekly earnings of the working man than it did half a century ago. But part of this increase is due to the fact that men are not satisfied with the kind of accommodation which they were contented with then. The standard of comfort has risen, as it ought to rise and will continue to rise, and everything else, everything necessary to existence, has decreased in cost. Thanks to the increased facilities for carriage, which we shall shortly have to consider more in detail, even meat costs less than it did but a very short time ago, and bread, sugar, tea, and clothing are much cheaper now than they have been at any period during this century. So that we have the fact that the position of working men, speaking generally, has improved all round. They have shorter hours and higher wages, and the necessaries of life cost them less.

But they have gained greatly in other directions also. They have obtained the fullest power of combination consistent with individual freedom, and they have won the franchise, and have thus entered into the full rights of citizenship.

In this comparison of the position of working men generally fifty years ago and at the present time, I have somewhat anticipated points to which we shall be brought again during this inquiry. Let us glance briefly at the course of industrial progress during the present century.

I have shown how discovery and invention burst forth and produced widespread disturbance. The increase of goods manufactured in certain branches of industry was great, but the means of distribution did not keep pace with the means of production. It is not easy for us to imagine what things were like in the olden time when a letter from Newcastle to Berwick cost 13½d., and took some ten or twelve hours to travel, when the most rapid communication was by coach and sailing ship, and when an average voyage from Liverpool to New York occupied as much time as an average voyage from Liverpool to Bombay does in the present day. Perhaps the statement of our antiquaries that a message or parcel could travel

more quickly from Newcastle to Rome in the first century after Christ than at the end of the first quarter of the nineteenth century brings the whole position somewhat forcibly home to us.

But, even towards the close of last century, men were hard at work upon the problem of applying the steam-engine to locomotion by land and water, and experimental boats were made, and locomotives ran upon common roads, and attained, in one instance at least, a speed of twenty miles an hour. But the first steam vessel for passengers built in Europe was Henry Bell's "Comet," which was completed in January, 1812, and which established once and for all the feasibility of this method of navigation. It was of 30 tons burden, 40 feet in length, and 10½ feet breadth of beam. It had two paddles on each side, and they were driven by engines of three-horse power. It ran thrice a week from Greenock to Glasgow, returning on the alternate days. The distance was 24 miles, and the fares were for the first cabin 4s., and 3s. for the second cabin. The speed attained was five miles an hour. The distance is now done in a few minutes over an hour, at the cost of a shilling.

But, when once fairly launched, steam navigation spread rapidly. In 1814, there were five steamers at work in the British Isles, and they were all Scotch; in 1824, there were 34; in 1840, there were 1,325, but by this time there were ocean-going steamers, and in that very year the Cunard Company began its operations. Perhaps the best way of showing the growth of this method of locomotion is by giving a table of the British steam tonnage and that of the world, at intervals of ten years:—

Year.	British.		The World.
1830.....	21,600	....	28,400
1840.....	95,000	....	116,000
1850.....	188,000	....	392,000
1860.....	502,000	....	870,000
1870.....	1,203,000	....	1,918,000
1880.....	3,108,000	....	5,644,000

In 1830, three-fourths of the total tonnage was carried in English bottoms, and in 1880 this had been reduced to a little over one-half. In 1889, the steam tonnage of the British Empire had increased to more than 5,000,000 tons.

But the great change in steamships has been in very recent days. At first they were regarded as invaluable for passenger traffic, but as of little importance for the carriage of general freight for long distances, because they had to carry such a large quantity of coal in comparison to their total capacity. But fifteen years ago compound engines began to be used, and were followed in this decade by triple-expansion engines, and there has been a complete revolution in the freight-carrying character of steamers. The consumption of coal is so much reduced that it has been said that a steamer of the

old type, and capable of carrying 3,000 tons, would, upon a voyage of a certain length, require 2,200 tons of coal for consumption, and only have space left for 800 tons of freight; but a steamer of the new type, making the same voyage to-day, would only require 800 tons of coal for consumption, and could consequently carry 2,200 tons of freight. Then, again, steel is now largely used in the construction of steamers, and the gain thus obtained is put by Sir Isaac Lothian Bell thus: A ship of 1,700 tons requires 17 per cent less in weight of pig-iron if built of steel rather than of iron, and is capable of doing 7 per cent more work. And, lastly, the new ships are supplied with infinite labour-saving apparatus—steam power everywhere taking the place of manual labour—so that, though there is a steady increase in the number of large ships built, there is no increase in the number of men required, whilst the cost of the new ships is much less than that of the old. I may put it that you could buy a steamer of the newest type, capable of doing two and one-half times the work of an old-type steamer, with no extra labour and with a considerable increase of speed, for three-fifths of the cost of the old-type steamer.

Thus there is a saving in every direction. The first cost of the boat is less, and it does much more work much more quickly at much less cost. In estimating the influences which have been at work to bring about industrial unrest, this development of cheap transport and its many accessories are of great importance. The reduction of freights means smaller dividends to the shareholders in ships, but cheap meat and bread to the general public.

So much for sea transport. Let us now inquire how far land transport has kept pace with it.

The Stockton and Darlington Railway was opened on September 27th, 1825, George Stephenson having been the engineer, and three locomotive engines having been ordered from the firm which he and Edward Pease had started at Newcastle in 1824. The railway was designed to carry coals from the Durham collieries to the sea, and the engines did this work, the passenger trains being drawn by horses, and the Act under which the railway was constructed providing means whereby private persons could place their own carriages on the rails. The company had only one coach for passengers, but several persons regularly ran coaches upon the line for hire. Up to 1832 there were not more than 520 passengers in a year carried by the company between Stockton and Darlington. The engines weighed 8 tons, and No. 1 drew 90 tons at from 12 to 15 miles an hour. The Stockton and Darlington Railway was followed by the Manchester and Liverpool line, with George Stephenson again as engineer. He had much difficulty to get the locomotive adopted upon it, but, having once succeeded, the victory of steam

was finally won. The increasing rapidity with which railways have sprung up all over the world is most interesting. In the first fifteen years, from 1825 to 1840, 5,000 miles were constructed; in the next twenty years, 1840 to 1860, 62,000 miles; in the following ten years, 1860 to 1870, 63,000 miles; and from 1870 to 1880, 100,000 miles. In 1870 there were 16,000 miles of railway open in the United Kingdom, and 53,000 miles open in the United States; in 1888 there were 20,000 miles open in the former, and 154,000 miles open in the latter country. It is estimated that, at the beginning of 1889, there were in the whole world more than 350,000 miles of railway.

Not only has the railway mileage, the number of passengers, and the tons of goods carried enormously increased, but the cost of carriage to the public has greatly diminished. As to the increase, in 1830 there were probably considerably under 150,000 passengers by railway, and all of these were in England; the tonnage of goods conveyed was probably under 200,000. In 1889 there were in England and Wales alone more than 680,000,000 passengers and 250,000,000 tons of goods conveyed. The United States carried in the same year 495,000,000 passengers and 619,000,000 tons of goods. The cost of carriage has been reduced on the United States railways from 2·5 cents for moving one ton of freight a mile in 1869 to 1·06 in 1887.

To enable the average mind to grasp these figures, that learned and instructive investigator of social problems, Mr. David A. Wells, to whom I acknowledge gratefully much indebtedness, varies their statement by saying that—

> Ten thousand pounds of coal, iron, wheat, cotton, or other commodities, can now be carried on the best-managed railways, for a distance of one mile, for a sum so small that, outside of China, it would be difficult to find a coin of equivalent value to give to a boy as a reward for carrying an ounce package across a street, even if a man or boy could be found in Europe or the United States willing to give or accept so small a compensation for such a service.

For commercial purposes, the railway and the steamship were practically unknown sixty years ago. Even now they are made use of by only about one-fifth of the population of the world. In 1882, when 250,000 miles of railway were open, only 36,000 of these were out of Europe or the United States, and half of that number were in India and Canada. In 1887, the power capable of being exerted by the steam-engines of the world then working was estimated by the Bureau of Statistics at Berlin as equivalent to that of 200,000,000 horses, or 1,000,000,000 men. The population of the world is, roughly speaking, about 1,500,000,000, and of these, as I have said, not more than one-fifth use steam-engines, and they are chiefly inhabitants of Europe and of the United States. These people have thus working for them day and night, to enable them to produce

more quickly and at less cost, to carry the products of their labour to other districts, to fetch the products of the labour of other districts to them, a force which neither hastes nor rests, which is never wearied, and is equivalent to 3·13 men constantly at work in the service of each man, woman, and child.

And yet it is certain that four-fifths of the steam-engines now working in the world have been constructed during the last quarter of a century, or since 1865.

Here, then, is the principal factor in the amazing development of industry. It is not a new discovery, it is simply the extended application of old discoveries; and it has operated by bringing places nearer to each other, by making the world smaller, as it were, by greatly reducing the cost of carriage, by bringing new markets into operation, and thus hastening the day when, by mutual arrangement, nations will, in the work of production, consider only what their true place in the world is, what they can really produce best, and so each nation act as a complement to the others.

What with fierce wars of tariff raging in Europe, and restrictive commercial legislation everywhere, excepting in Great Britain and Ireland and her dependencies, we are far enough at present from this position.

I need only mention, as another important factor in industrial progress, the great development of the electric telegraph. The first was set up on the Great Western line in 1838-9, and five years afterwards it was introduced into the United States. In 1881, there were 26,500 miles of telegraph lines in the United Kingdom, and 121,000 miles in the United States; and, in 1889, the telegraph lines in the world were at least 600,000 miles in length. A quarter of a century ago it was, to most men, rather an event to receive a telegram, and it was opened not without trepidation; now they are, to many persons, nearly as common as letters. In 1888, there were 58,000,000 messages carried in the United Kingdom.

But the increase in the number of letters is worthy of notice, In 1839, the year before a uniform penny postage was introduced, 3,500,000 paid letters passed through the London General Post-office; in the year 1840 there were nearly 41,000,000; and in 1889 there were delivered (including post cards, book packets, &c.) 2,323,000,000. The mind fails to grasp the real significance of such figures as these.

Surely these are the times when many run to and fro, and knowledge is increased. I have gone, so far, into some detail, because I wish to show how great and rapid the development has been in certain departments which enable products to be transported and exchanged expeditiously and economically. It is not possible for me to deal with the vast mass of labour-saving appliances which

have been called into being in the past half century. I can only take one or two familiar instances, and show from them how manufactures and trade have been revolutionised in our own time. But to show how the pace is increasing, even now, I may mention that, in 1865, there were 3,386 specifications of patents filed in the English patent office; in 1875, 4,561; in 1880, 5,517; and in 1889, 21,008.

> Spring calls full many buds to swell
> Which ne'er may come to flowers.

Everyone knows how few completed patents have any real value, and not nearly all that are applied for are ever completed; but the number applied for shows, at all events, how great an amount of mental effort is being devoted to the simplification of processes, for to that most patents are directed.

And the great and rapid growth in the volume of trade is abundantly evidenced whether you look at the facts of local or general traffic. In 1884, there were 22,114,233 parcels carried through the Parcels Post, and their weight was 394,897 cwt. In 1888, the number carried was 38,794,030, with a weight of 860,930 cwt. Again, in 1865, the gross receipts of the railway companies of the United Kingdom were 16·6 millions from passengers and 19·3 millions from goods, or 35·9 millions in all; in 1888, they were 31 millions from passengers and 38·8 millions from goods, or 69·8 millions in all. In other words, the passenger traffic has nearly doubled, and the goods traffic more than doubled, in twenty-three years. It is not unimportant to notice that the net traffic receipts bore the proportion of 4·06 per cent to the total paid-up capital if you average the five years from 1865 to 1870, and 4·29 if you average those from 1880 to 1884. The weight of goods (minerals and merchandise) carried was 115,000,000 tons in 1865, and 292,000,000 tons in 1888.

It is not uninteresting to turn from the general view to consider, briefly, what the progress of one railway company has been. If we take the North-Eastern Railway Company, we find that it had open, on December 31st, 1865, 1,205 miles of railway, single and double or more, and on December 31st, 1889, 1,599 miles. It carried 12,977,135 passengers in 1865, and 38,211,572 passengers in 1889. This does not include the holders of season or periodical tickets, who had grown from 3,502 to 11,116 in the same space of time. But, to go back to the passengers for single or return journeys only, it is the third-class passengers who have made the increase. The first-class passengers have diminished in number from 901,569 to 841,874; the reduction in the number of second-class passengers is enormously greater, from 3,329,144 to 665,413; whilst the third-class passengers, who were, in 1865, only 8,746,422, were, in 1889,

actually 36,704,285. The mineral traffic has more than doubled, being 32,250,000 tons in the later year, as against 15,250,000 tons in the earlier year; and general merchandise has increased from 4,250,000 tons to 9,250,000 tons.

When we come to the question of cost to the public, we find that, whilst three times as many passengers were carried in 1889, the amount received from them was not quite double that paid in 1865, or, in figures, from £874,958 to £1,653,715. Here, again, it is the third-class passengers and season-ticket holders who have come to the rescue. The first-class fares have fallen from £168,398 to £131,357; the second-class, from £276,162 to £59,752; but the season and periodical ticket payments have risen from £22,246 to £96,975, and the third-class fares from £408,152 to £1,385,631. In the same time the total receipts from goods traffic rose from £2,503,832 to £4,679,418.

But you have, perhaps, in the growth of distributive co-operation as good an illustration of this marvellous development of trade as can be obtained. In 1865 there were, in the United Kingdom, 867 societies making returns, and the sales amounted to £3,373,847; in 1888 there was 1,369 similar societies, and the sales had grown to £36,005,235. It is sometimes said by young and ardent reformers that such forces as co-operation act too slowly to be of great service in the improvement of the social condition of people generally, but an eleven-fold increase in less than a quarter of a century is only slow in an argumentative sense.

We must bear in mind that the great and rapid growth of trade or of production—for, speaking generally, production is for purposes of trade—is not in any way confined to the United Kingdom, nor even most marked in its case in these latter years, but extends over the whole of the civilised world. England began earlier than other nations to be a general producer, and her rate of progress cannot, therefore, reasonably be expected to keep up with that of those who are more newly in the field. If the first step be the most difficult, the early stages of any pursuit are those in which the greatest apparent advance is made. The resistance becomes stronger as the pace increases.

But we must also remember that great as our foreign trade is, and important as it is that we should strive in all lawful ways to maintain what we call our commercial supremacy, yet it is but a fraction (probably about a ninth) of our entire industry, and our home trade is of much greater importance. And, further, as compared with many lands, the facilities for the production of food products in England are immeasurably smaller.

The greatest advance in late years has been made by the United States. Beginning again with the year 1865, let us see what that

advance has been in a few particulars, first premising that, in area of land, the United States contain nearly as many square miles as Europe—the actual difference being about a fifteenth, or 260,000 square miles. In 1865, the population was computed by the Actuary of the Treasury Department to be 34,748,000, and in 1890, 64,476,000.* The miles of railway in operation grew from 33,908 in 1865, to 156,613 in 1889. At the same time, the charge for transport has greatly diminished. Mr. Edward Atkinson, to whose luminous articles in the *Century* and the *Pioneer* I am indebted for many of my facts, says :—

> The New York Central and Hudson River Railroad may be taken as a good example of an important line of railway under most efficient management, and as a standard of what other lines may accomplish when the magnitude of their traffic will permit them to make as great a reduction in rates. The average charge per ton per mile on this line, from 1865 to 1868 (four years), was 3·0097 cents; from 1882 to 1885 (four years), the charge was 0·7895 cents—difference, 2·2202 cents. If we may assume that the people of the United States have been saved two and one-fifth cents per ton per mile on the whole of the railway traffic of the last four years, either by the construction of railways where none before existed, or by such a reduction in the charge for their service, the amount, or money's worth, saved in four years has been 3,898,373,159 dollars, which sum would probably equal the cash cost of all the railways built in the United States since 1865, to which sum might probably be added the entire payment upon the national debt since 1865.

In 1865, thirteen of the principal railways of the United States carried 2,222,738,318 tons a mile, at an average charge of 3·271 cents; whilst in 1887, the same railways carried 21,319,787,937 tons a mile, at an average charge of ·866 cents per mile.

The most important point, perhaps, is that whilst between 1870 and 1885 the production of grain increased 85 per cent, the consumption of cotton 86 per cent, and of wool 88 per cent, the production of hay 100 per cent, the production of cotton 108 per cent, the production of iron 143 per cent, and the miles of railroad 168 per cent, the growth of the population in the same period, although really large, was comparatively small, being 48 per cent. Mr. Atkinson says of these relative advances that—

> They represent a constant gain in the means of subsistence over population. . . . The progress of the million in the means of common welfare rather than of the millionaire in personal wealth, and they give testimony to the beneficial law of progress from poverty.

I need only add that, whilst the purchasing power of gold increased in the same period more than 50 per cent, the average daily wages, both of the average and the superior workman, have increased also.

Next to the United States in the matter of rapid progress come Australia and the Argentine Confederation. In the latter case,

* The population of the United Kingdom in the same period increased from 29,000,000 to 38,200,000.

during the twenty-five years preceding 1888, the population increased in a ratio nearly double that of the United States, or, in other words, nearly doubled itself. In 1878 the exports of wheat, maize, and linseed were together but 213 tons, whilst in 1887 they were 632,700 tons. When Mr. Darwin visited their southernmost province, Patagonia, in 1824, in H.M.S. "Beagle," he found a desert land. Port Famine was not only a true name for the place where several hundred Spaniards starved to death, but expressed truly the character of the country. The zoology of the land was as limited as its flora; it was a sterile and droughty land. After four months' experience of many different parts "the country remained the same, and was extremely uninteresting. The complete similarity of the productions throughout Patagonia is one of its most striking characters. The level plains of arid shingle support the same stunted and dwarf, and in the valleys the same thorn-bearing bushes grow. . . . . The curse of sterility is on the land, and the water flowing over a bed of pebbles partakes of the same curse." Cannibalistic mice were the only product in which this poor land was rich.

But now Patagonia has shared in the prosperity of the confederation to which, for the most part, it belongs. It is a land of rich pastures, and "immense possibilities for supplying the world with meat and other desirable animal products—wool, hides, and skins."

And we must not forget our great dependency, India, whose industrial progress has been so remarkable and so rapid. The government of the East Indian Company ceased in 1858, and at that time the total imports were £31,090,000 (which included £15,810,000 treasure), and exports £28,280,000. They are now respectively £65,000,000 (including £13,830,000 treasure) and £92,140,000. The fact is that India has become really a manufacturing and trading country. She exported grain to the value of £4,282,000 a year on the average of the years 1860–5, and the yearly export had grown to £16,584,000 on the average of the years 1883–8. The export of raw cotton had, indeed, fallen from £37,570,000 in the year 1864–5 to £14,410,000 in the year 1887–8, but this diminution is caused by the fact that the home-manufacture of cotton by machinery has been greatly developed since the earlier date. In 1878–9, the consumption of cotton in the mills of India was only 268,000 bales, but in 1887–8 it had more than tripled, for it was 815,000 bales.

The development of traffic upon Indian railways in the last fifteen years has been extraordinary. In 1876, the mileage open was 6,833 miles, and the total quantity of goods traffic was 5,750,000 tons; in 1885, the mileage open was 12,376, and the total quantity of goods traffic about 19,000,000 tons; in 1888, the mileage open was

14,383. And yet the traffic which has been developed on the railways of India is less in proportion to the population than that of any other country in the world. The goods traffic only represents some ·05 of a ton per head of the population, that of the United Kingdom being over seven tons per head. In agricultural produce only about 4,000,000 tons are annually transported, as compared with 75,000,000 tons in the United States, for less than a fourth of the population.

The opening of the Suez canal, Mr. Wells says, "was probably productive of more immediate and serious economic changes—industrial, commercial, and financial—than any other event of this century, a period of extensive war excepted." The voyage from London to Calcutta has been reduced in time from six to eight months to twenty-eight days, and telegraphic communication has enormously increased the facilities of commercial transactions.

We have glanced from time to time at the part which our own land has played in this extraordinary leap forward which the last quarter of a century has seen, but before we proceed to apply the points which we have been considering, let us look at a few other facts which show that Old England has not been left hopelessly behind in the race. But we must bear in mind that the last quarter of a century has been by no means one of unmitigated prosperity. In the North of England, on the contrary, it has been a time of much commercial gloom and depression. Prices have been very low. Wages have been much reduced. Both prices and wages have touched in many trades their maximum and minimum, but still production has gone on increasing. More and ever more has been made, more and ever more sold at constantly decreased prices. There have been great and frequent fluctuations, but, on the whole, it is the purchaser and not the producer who has reaped the great benefit. And we are all purchasers, whereas not more than one out of three is a producer, and thus (as we shall see more fully shortly) the world has been the gainer. Each observes most clearly the land which lies most closely about him, and thus many persons have had the idea that things were going back generally because the things they noticed were. Just as we have young enthusiasts in the cause of humanity, who have got their eyes newly opened to the evils yet to be redressed, the cruel wrongs still to be righted, but have no memory of the past wherewith to compare the present, and who declare that the poor get ever poorer and the rich richer, which is exactly the reverse of the truth.

England leads the world in the matter of foreign trade, and leads it easily, although other peoples are stealing up to her. I have made a rough computation of her imports and exports for the year 1887, the last year for which I have the figures, and I make her total more

than £864,000,000, or about £24 a head for her population; whilst that of the United States is £581,000,000, or about £10 a head; France, £658,000,000, or about £17 a head; and Germany, £774,000,000, or, also, about £17 a head.

But we will take one item of our import trade—wheat—and will briefly note the changes that have occurred in it, and what they mean.

Mr. Porter, in 1836, stated that the average annual import of wheat in the ten years from 1801 to 1810 into the United Kingdom amounted to 600,946 quarters, the exports exceeding the imports in the year 1808, and the average price being 82s. 2d. per quarter. In the ten years 1811 to 1820 the average annual import was 458,578 quarters, and the average price 88s. 8d. From 1821 to 1830 the average annual import was 534,992 quarters, and the average price 58s. 5d. He says that "the foregoing calculations show in how small a degree this country is dependent upon foreigners, in ordinary seasons, for a supply of our staple article of food." He repeats this observation in the 1851 edition of his "Progress of the Nation;" but the annual average from 1831 to 1840 had grown to 907,638 quarters, at an average price of 56s. 9d., and from 1841 to 1850 to 2,588,706 quarters, at an average price of 55s. 11d.

I need not go further in so much detail, but simply state that the average annual importation from 1861 to 1870 was over 9,000,000 quarters, the average price being 51s. a quarter; from 1871 to 1880 over 14,000,000 quarters, the average price being 50s. 2d. a quarter; and from 1881 to 1889 over 17,000,000 quarters, the average price being 33s. 7d. a quarter.

The average price of wheat from 1801 to 1850 was 61s., the variations being between a maximum of 114s. and a minimum of 39s. The average price from 1851 to 1881 was 51s., the variations being between a maximum of 64s. and a minimum of 39s. The average price from 1882 to 1889 was 35s. 6d., with a maximum of 46s. 4d. and a minimum of 29s. 9d., or, if we take the last six years only, the average price is only 32s. 8d., and the variation between 37s. 10d. and 29s. 9d.

The most important fact is that the fluctuations of price have become so much smaller. The less money you have to play upon the more necessary becomes certainty of price. It is only the rich bachelor who always gets a penny loaf for a penny.

Thus, then, we have seen that, until the middle of the century, we had comparatively little need of the foreigner for our food supply. Our annual consumption of wheat in the twenty years from 1811 to 1830 was 97,000,000 bushels (eight bushels make one quarter), and we only imported 3,000,000 of them; in the next twenty years, to 1850, we used annually 118,000,000 bushels, and imported 16,000,000 of them; in the ten years, to 1860, we used annually 150,000,000

bushels, importing 47,000,000; in the ten years, to 1870, we used annually 175,000,000, and imported 73,000,000; to 1880, we used annually 191,000,000, and imported 114,000,000; and in 1882 we used 207,000,000, of which 135,000,000 were imported.

Let us see whence this great quantity came. We will compare the average of the years from 1861 to 1870 with the year 1881 and the first seven months of this year (1890), giving the number of millions of bushels.

	1861–70.	1881.	1890. Jan. to July inclusive.
From America	22	85	23
„ Russia	19	10	20
„ India, &c.....	31	40	24

But, in addition to this, we imported in the seven months mentioned 9,503,379 cwt. of wheat-meal and flour, and 7,940,791 cwt. of these were from the United States. I may mention, incidentally, that 29,159,940 cwt. of Indian corn were also imported during the same seven months. The increase in this article during the past three years is phenomenal. From 23,000,000 cwt. in the eleven months, from 1st September, 1887, to 31st July, 1888, it rose to 30,000,000 cwt. in the following twelve months, and to 39,000,000 cwt. in the year 1889–90.

Thus, then, speaking generally, America has become much the most important aid to the needs of our people, but we are by no means dependent upon America. Thanks to steam, the world is open to us. We have not only the corn-growing lands of Europe, but India and Australia to resort to; and this is really a matter of vital importance. Should there be a deficient crop in the United States, should their protective duties be raised to such an extent that our purchases from them could no longer be paid for in our goods, should the unforeseen occur there or elsewhere, we have the world to draw upon to make up the deficiency. In 1888, the wheat crops of the States were considered to be a failure, and those of Canada, the Argentine Republic, and Australia were also small. Prices were to go up in England to those of the bad old times. But it was not so. The good crops of some parts of the wide world atoned for the bad crops of other parts, and there was but little variation of price—38s. 1d. being the maximum and 28s. 7d. the minimum. In 1847, the variation was between 102s. 5d. and 49s. 6d.

Surely this fact of the whole world having become, as it were, one market should greatly facilitate the growth of kindly and friendly relationships between its different peoples. It is a slow process—most good processes are—but it is constantly going forward, and can scarcely fail to make for peace. No doubt it is disappointing to find that the old delusion that the gain of one nation is injury to another still exists, and rules the conduct of

civilised peoples towards each other in commercial matters. But we may feel some satisfaction in the knowledge that the protectionist policy is being tried at length upon an unprecedented scale, and by our most formidable competitor. If our beliefs are right, the end of a protective policy in the United States can be no great way off. How far that will benefit England, at first at all events, is exceedingly doubtful. The tariff wars in Europe have been a positive gain to us. The tariff wars and the bounty systems alike have benefited us. Perhaps the case of sugar is the most striking of all in this respect. The wholesale price of fair refining sugars was more than 114 per cent higher in 1880 than in the first half of 1887, and this fall was the result chiefly of the extraordinary encouragement given by the Governments of the cane-growing and beet sugar-making countries to this special trade, although improved manufacture and increased facilities of carriage have also assisted in the matter. In 1888, the beet sugar manufacturers in Europe reduced their production; but between 1873 and 1886 the world's output more than doubled, the beetroot sugar increasing from 20 per cent of the whole in 1860 to 56 per cent in 1887, Germany alone leaping from about 200,000 tons in 1876 to 1,155,000 tons in 1884–5. And other lands have vied with Germany, and Europe has seen a wild competition first in the production of sugar and then in the sale of the sugar produced to the foreigner at the lowest price possible, the home population paying the cost of the ruinous process. And so it comes to pass that Frenchmen and Germans pay for the sugars made in France and Germany twice as much as the English pay for the selfsame articles, and that in France the consumption per head is 28lbs. and in Germany 20¾lbs., whilst in Great Britain (where no bounties are given or taxes paid on sugar) it is 74lbs. A committee representing West Indian sugar producers estimated that in one year (1884) the saving to the British people from the reduction in cost of this single article was at least £5,000,000, or more than the entire value of the annual sugar product of the West Indies, and twice the fixed capital invested in sugar refining in the United Kingdom. But with freedom of trade all round, though we should lose some advantages, we could not complain, whatever the ultimate results might be.

I have said that America is the most important of all lands to us in the matter of wheat supply, but that, thanks to steam, the whole world is open to us. The tendency of improved means of communication and locomotion has been to bring all quarters of the globe nearer together. At one time, and not very long ago, a bad harvest at home was a serious thing for the general public as well as for the farmers. Quite recently a failure of the crop in the Danubian principalities made a disturbance in the English corn

market. Now the electric telegraph makes even a temporary check in any district known simultaneously in the markets of the world, and arranges the supplies necessary to remove the difficulty. What are the results? A constant reduction in the price of wheat and a constantly increasing steadiness of the market.

There are many facts relating to the wheat industry in the United States which are of the greatest interest, and which illustrate in a somewhat startling manner the rapidity of recent commercial progress in several directions. Mr. Atkinson has calculated that the American farmer could, when reduced transport and other changes are taken into consideration, sell flour in England in 1887 at 34s. a quarter with as much profit as 54s. per quarter for wheat would have given him from 1870 to 1873. And, again, he states that in the year 1887, and on the wheat farms in the north-west of the United States, with the wages of the permanent employés at 25 dollars a month and board, wheat could be produced for 42 cents a bushel; whereas, in Rhenish Prussia, with the wages at 6 dollars a month, its cost was 84 cents a bushel; and, lastly, the acreage of British-grown wheat has, in consequence of this great cheapening of American wheat, diminished from 3,981,000 acres in 1869 to 2,317,324 acres in 1887. This has, of course, led to a great displacement of unskilled labour.

Now the question naturally arises, how and why is this? I need not go into the question of the standard of comfort, which is, of course, much lower in Prussia than in America; nor into the fact that the food supply of the German employé is deficient alike in quantity and variety. There must be other causes at work to make it possible for wheat to be carried 1,000 to 1,500 miles, be ground into flour, then carried other 3,000 miles, and yet compete successfully with that grown and ground at home.

There must be—and there are—other causes at work. To confine ourselves to the United States, there is the constant appropriation to wheat growing of great districts of cheap and virgin fertile land. For example, Dakota alone produced, in 1887, 62,553,000 bushels of wheat, and yet in 1881 it had not produced a single bushel for sale. Then there has been a great introduction of labour-saving machinery applied to the production and harvesting of crops.

On many of the large ranches of California steam ploughs are used, and on others gang ploughs, which turn four to six furrows, and are drawn by from eight to fourteen mules. Not infrequently the ploughs are run in a straight line for a distance of six or eight miles. A patent machine for sowing seed is employed, by means of which, it is claimed, one man and a team can sow one hundred acres of grain in a day.

In fact, all the processes so familiar to many of us in childhood—ploughing, sowing, shearing, binding, threshing—are now per-

formed by machinery, and machinery which is constantly being improved in the direction of combining the operations of each machine and reducing their cost. It is said that more than 100,000 self-binding reapers are sold in the United States in a year, and that each does away with the work of seven or eight men. In 1889, the wheat crop was over 50,000 tons, and required for its binding over 30,000 tons of twine. By the addition to the reaper of the knot-tying binder the cost of wheat was reduced from 6 to 10 per cent.

Again, there has been a great reduction in the cost of transport, both overland and by sea. The charge per ton per mile upon the great food-providing lines has been reduced from 3·642 cents in 1865 to 1·014 cents in 1887. In an English ton there are five quarters or forty bushels, so that upon these lines a quarter of wheat can now be carried 1,000 miles for 9s. 4d. (allowing for the American ton being 2,000lbs. only), whereas twenty-five years ago it would have cost 33s. 8d. But the reduction of the transport by sea is much more remarkable. The freight on wheat from New York to Liverpool in 1880 was 9¼d. a bushel, or £1. 10s. 10d. a ton, but in 1886 it was only 1d. a bushel, or 3s. 4d. a ton. This is the work of the triple-expansion engine so far as sea carriage is concerned, and of the Bessemer steel rail so far as land carriage is concerned.

So far for wheat. I shall not go through other articles in any detail, but shall content myself with pointing out that there has been a remarkable increase in the supply and decrease in the price of many other important foods and similar articles, and notably in meats. Our total import of bacon, beef, cattle, and pork, in 1861, was 76,000 tons; and in 1881, 445,000 tons. In 1860, we imported 400 carcasses of frozen mutton from Australia; in 1888, we imported nearly 2,000,000 carcasses from Australia and the River Plate. The import of live animals and fresh meats into Great Britain has very largely increased, the total value of such imports from North America, Australia, and the River Plate, in 1870, being about £5,300, and fifteen years afterwards about £84,700. This increase has been made possible by the greater facilities of transport. There has been a material reduction in the retail cost of meat, and that this reduction has not been greater is due to the fact that many thousands of our people now eat meat regularly to whom not long ago it was a rare luxury.

Everywhere do we find the same story. Greatly increased production, greatly reduced prices; great material progress won chiefly by the extended invention and use of labour-saving machinery. See what a machine has done for little Denmark. In 1883, it exported 19,000,000 pounds weight of butter. Then the mechanical cream separator was invented, and the export has now risen to nearly 60,000,000 pounds. Or take Chilian saltpetre (nitrate of

soda), of which only 6,000 tons were consumed in 1845, and 715,000 tons in 1888; or take Indian tea, of which 35,000,000 pounds were exported in 1879, and 113,000,000 in 1888; or quinine, which rose from 4s. 4d. an ounce in 1865 to 16s. 6d. in 1877, but fell, in 1887, to 1s. 6d. In all of these, as well as in innumerable other instances I might mention, the extra product is only obtainable by means of improved machinery, or by new and more economical processes; it is often only required in order to carry out new processes for the increased production of some other article; and it becomes marketable at the reduced price because of the great improvement and cheapening of the means of transport.

Thus, then, we have seen that the last twenty-five years have shown an enormous advance in the industry of the world, and this advance has been made chiefly, or in a great measure, by the adoption of labour-saving appliances. There has been a constant displacement of labour going on ever since the end of last century, and this alone is sufficient to account for an ever-increasing amount of industrial unrest; but at the same time other forces have been at work, all tending to make that industrial unrest more acute. In our own land, as I have pointed out, the condition of the skilled workman has greatly improved, and his standard of comfort has risen. This is true also to some extent, though not nearly to the same extent, of the unskilled labourer. But there is no finality in matters of this kind. The standard of comfort tends constantly to rise, "as though increase of appetite did grow by what it fed on," and this is to be desired. "Real saving lies, first of all, in getting the permanent surroundings of a good and healthy and civilised life, saving in house and furniture and mutual insurance, not in mere saving capital by accepting a lower standard of comfort." Then we have obtained at last something like a national system of education. Education has become general, and every day sees its work advancing, and bearing much fruit of many kinds. You cannot educate people and expect them to be willing to remain exactly in the same physical or social conditions which satisfied them when they were still ignorant. The body politic is full of abuses, which must be remedied so soon as men's eyes are opened to them. And not only this, but political power, the power of moulding and re-forming the Constitution, is now in the hands of the people generally. Slowly, and with much strife, the right of taking part in the government of the land has been extended from the wealthy and powerful few to the middle class, and from them to most, not yet to all, men and women who must obey the law whether they have any voice in making it or no. As the great majority are workers who have suffered grievously from the injustice of the laws when they had no voice in their making, it is certain that they will not remain contented to suffer injustice

when the remedy is, or seems to be, in their own hands. But commercial prosperity is no certain thing. It can easily be disturbed or destroyed. It is not a matter for rash experiment. And whilst welcoming every change which is truly a step in advance, whilst looking forward to the abolition of class privileges, whilst anxious for the removal of the uncertainty which weighs so hardly now upon the worker, and for the promotion of everything which will increase the comfort and happiness of the people and lessen the effort with which that comfort and happiness are purchased, whilst believing firmly in the possibility of a time when poverty shall mean vice, laziness, or incompetence, and not inability to procure the proper reward of honest labour, I do not believe that any such change can be brought about by legislative enactments or by restriction in any shape or form, but rather that it is to be attained by patiently and resolutely following the paths which have already taken us so far towards the desired goal, and by improving those paths so as to make them more easy to follow.

Indeed, the important question is, how far have men generally benefited by the industrial progress which I have sketched? Has it been on the right road? It is of no use galloping if you are going the wrong way. There is so much in the condition of a vast number of our fellow-citizens to make us doubt, to sadden and depress us. The revelations of the Sweating Commission are terrible reading. The revelations of the daily press are even more terrible. The de-humanisation of men and women, as evidenced by the treatment of their own little children, is all but incredible. The profligate luxury and the grinding misery which greet us in our public streets, the bitter contrasts of life, the amount of life which is lived without joy, without love, without hope, the dull monotony of much labour, and the wearily long hours of work still required from many, all preach to those who will listen of "the petty done, the undone vast;" all constantly cry to those who have ears to hear, "is it nothing to you, all ye who pass by?"

Nothing! Yes, much. It is everything for every English man and woman worthy to bear the name. But, whilst filled with shame and sadness, whilst doing all that in us lies to lessen the misery around us, and to improve the social condition of the many, it is of all importance that we should look the facts in the face, and fully recognise what has already been done and is doing, how much of this burden is fairly to be laid upon the shoulders of the community, to what extent the evil is remediable by the individual, and how far we are better or worse in these matters than our fathers were.

Has the condition of the country generally improved? Has the condition of the working class generally improved? These are the questions to which I shall next address myself.

They are vital questions, and unless they can truly be answered in the affirmative our progress is really of no account. For what do all our political contentions, our social efforts in higher education, our struggles and strivings in innumerable directions, mean? Surely, in so far as they are not purely and miserably selfish, the improvement of the condition of all men, not by saying in the cold voice of the law "be thou fed and clothed," but by making the way open for all men to walk therein, and by encouraging them to walk therein by example even more than by precept.

It is well to be very sure about our facts. We find that at many periods of the industrial history of England which we look back to as dark and gloomy, those who were living in them and writing about them took a very different view. Even in the year 1800 men wrote about the condition of the working class as though the best position possible had been obtained for them, and yet we know that, forty years later still, their condition was so bad, and apparently so hopeless, that foreigners who came to England to study social questions looked forward to a violent revolution as the only remedy.

Let us, then, see how what we may call thrift societies—societies which enable a man to save easily and in small sums—have fared during the past fifty years. We will begin with friendly societies, as they are the oldest organisations of this kind which have appealed directly to the working classes. So early as 1793 an Act was passed allowing societies formed for raising a stock or fund for the mutual relief and maintenance of the members in old age, sickness, and infirmity, or for the relief of the widows and children of deceased members, to be registered. They had to go through certain formalities, and had certain privileges accorded to them. More than twenty Acts extended and developed the law affecting such societies, and in 1875 such law was codified in the Friendly Societies Act of that year. From 1793 to 1832 there were 19,783 of such societies registered, and Mr. Porter computed that there were more than 1,200,000 members in 1847. This was for the whole of the United Kingdom. In 1874, the Royal Commission estimated the total of registered and unregistered friendly societies in England and Wales at 32,000, containing upwards of 4,000,000 members, with funds of £11,000,000. In 1880, the registered societies alone which sent in their annual reports to the Registrar (only some two-thirds of the whole which were registered) numbered 12,867, with £13,000,000 of funds, and more than 4,800,000 members. Up to December, 1887, they had increased to more than 17,000, their funds were nearly £18,000,000, and they had more than 6,000,000 members.

Let us next take building societies, which are not, indeed, exclusively used by working men, but a large proportion of the

members of which do belong to the artisan order. Now, building societies were legalised in 1836, but they only gradually became great permanent institutions, and the law under which they flourish was only remodelled in 1866. Neither Mr. Mc.Culloch, in the third edition of his "Descriptive and Statistical Account of the British Empire," published in 1847, nor Mr. Porter, in the new edition (1851) of his "Progress of the Nation in its Various Social and Economical Relations from the Beginning of the Nineteenth Century," mention these societies, even when treating specially of general means for promoting thrift. Their rapid growth has been quite phenomenal. In 1875, in England and Wales there were 261 building societies making returns, with total funds of £13,000,000, but in December, 1887, the societies had increased to 2,346 in England alone, with £50,000,000 of funds, and 566,000 members.

We will next see whether anything of the same kind has taken place in savings banks, and here we have accurate statistics of trustees savings banks from 1817, when the first Act was passed for their encouragement. We will compare the year 1838 with the year 1888 (the last return available), so as to get our fifty years. There were in 1838, and in England and Wales, 611,000 depositors, with £19,000,000 of deposits; and in 1888, 1,600,000 depositors, with £46,000,000 of deposits. But, in 1862, the post-office savings banks were instituted, and they have flourished exceedingly, and return 4,200,000 depositors, with £13. 17s. 5d. per head deposited on the average, their total deposits being £59,000,000. Now, adding these together, we get a grand total of 5,800,000 depositors and £105,000,000 deposits; so that, whilst in the fifty years named the population of England and Wales has increased rather more than 80 per cent, the savings bank depositors have increased more than 900 per cent, and the deposits more than 500 per cent. And the immense majority of these depositors are actually of the working class.

I am unable to give a general statement as to the progress of trade unions either in membership or funds, for the statistics furnished are not only far from complete, but are full of startling discrepancies which could only be harmonised and fully explained by one with special knowledge of the circumstances affecting each case. Thus, whilst the amalgamated engineers increased their membership from 12,553 in 1885 to 52,019 in 1886, the boiler-smiths and iron shipbuilders from 7,621 in 1870 to 32,440 in 1889, the ironfounders from 5,685 to 12,037, and so forth, the operative stonemasons fell from 24,543 members in 1875 to 10,238 members in 1887. Last year 254 trade unions made returns. They had 346,309 members, funds amounting to £688,652, and their annual income was £694,839.

I need only refer very shortly to the remarkable development of co-operation, for I have already given the details of the great increase in men and money which the co-operative movement has experienced. And most co-operators would readily admit that, great as has been its success, it has only as yet made a fair start. There are vast and almost untrodden fields before it. It has scarcely begun to carry its blessings to the poorest of the poor, and its productive operations are extremely limited. We must not forget that there is probably more room for profit in the work of distribution than in that of production.

Mr. Atkinson has pointed out that—

> One man working the equivalent of three hundred days in the year, or three men working one hundred days, in the harvest season, on the far plains of Dakota, in the production of wheat, aided by one man working three hundred days in milling and barreling the flour, and supplemented by two men working three hundred days in moving wheat and flour from Dakota to New York, and in keeping all the mechanism of the farm, the mill, and the railroad in good repair—four men's work for one year places 1,000 barrels of flour at the mouth of the baker's oven in the city of New York, a yearly ration of bread for one thousand men and women.

In other words, two men are engaged in producing the raw and finished material and two men in conveying it to the bakery, but it would take one man about sixteen months to turn it into bread, so that five men are required to produce twelve months' bread for a thousand people. But how many more would be required to distribute it? I am told that one shopman in a good ready-money district could readily sell, and another with a horse and van could distribute, the quantity of bread which two or three men could bake. Taking these statements, we have three men engaged in production in this special instance for two men engaged in the distribution of the raw material and the finished article. But we have not mentioned any corn merchant or agent in the matter at all. If, instead of baking at New York, this process were performed at Newcastle, there would be merchants, ship brokers, ship captains, agents, dock labourers, and possibly carmen also, to be paid out of the distributive part of the whole process. I do not pretend that this is always the same with all articles, but the point of comparative possibility of profit is one which seems to me to be worthy of more consideration than it receives.

Co-operation has a vast field before it, but so has trade-unionism. At present, not more than one-half of the skilled and a very much smaller proportion of the unskilled artisans are members of any trade union. Savings banks, building societies, and friendly societies are, of course, capable of practically unlimited extension, so that

not one of these means of thrift, of profitable saving and investment, of becoming in a manner a capitalist, has been in any way exhausted or even satisfied.

There is, however, a great difference between trade unions and co-operative societies. The primary idea of a trade union was that of defence; some men might say that the primary idea of the new trade-unionism was that of defiance. After writing this sentence I took up the *Pall Mall Gazette* of the preceding day (Oct. 4th), and my eye fell upon this sentence: "The trade unions of to-day are fighting organisations, and do not incumber themselves with the business of friendly societies." But as unions have become more thoroughly established, and as their power has grown, they have, in fact, made more and more for peace, until, as the excellent secretary of the Boiler-smiths and Iron Shipbuilders' Union recently stated, only 3 per cent of the funds of the society have in the past ten years been used for strike purposes. Surely this points to a possible time when trade unions, which had at first to adopt the form of friendly societies as a disguise, will cease to have any function in reality other than that of which they once had little but the name.

Now let us look at one or two more general considerations. Let us see whether, speaking generally, the hours of labour have been shortened and the wages of labour augmented. About the hours of labour it is not necessary to say much. All will agree that they have been materially lessened. Where twelve, fourteen, and sixteen hours were once worked by children of tender years, now eight, nine, or ten hours are worked by mature men. This is a great and certain gain to which many different agencies have contributed, although I must in fairness admit that the incidental effect of the Factory Acts has been of first importance. So long as the work of the world is carried on, the fewer the hours which must perforce be worked the better, though that is a very different statement from the one so popular at present, that mature men must not be allowed to work more than a given number of hours even when they wish to do so. The new papa-state is to think and decide for them, as the old paterfamilias did for his little children. That seems to me a weak way of dealing with such a matter; but, on the other hand, I sometimes hear men scoff at the idea that the hours of labour should be reduced wherever possible. The new gospel of the slavery and hatefulness of honest labour is indeed false to the core, yet it might be well if we were to endeavour practically to realise the grinding monotony of toil before we came to the conclusion that a strong man cannot have too much of it.

Then have wages, speaking generally, increased? Upon this point there is a constantly accumulating body of evidence, and, so far as I have seen, it all goes to show not only that they have increased but also that the increase has been a material one. It matters not by whom the figures are taken, the results point to the same conclusion.

Professor Leone Levi, who spent years of his useful life in careful investigations of these matters, writes in 1885:—

> Taking a comprehensive view of the entire range of industries, bearing in mind the actual rise in the rates of wages, the increasing amount of piecework and overtime, the improved earnings of women and children, and the receipt here and there from interest of money from investments or from rent of house saved equal to fresh income, I think I am justified in assuming that the working classes as a whole are in receipt of 30 per cent more in 1884 than they were receiving in 1857, or, in other words, that if the total weekly receipt of a family from all sources in 1857 amounted to 24s., now they reach at least 32s. a week.

I know that all attempts to go into minute detail upon a point of this kind are fraught with great difficulty. There are many matters to be taken into consideration as well as the wage which a man could earn if in constant employment. Sickness, bad times, the many causes which occasion that uncertainty of employment which has been the most trying feature of industrial operations since the reign of machinery began, are ever to be borne carefully in mind. I am not concerned at present to take the statement of any statistician as actually correct, nor to argue that our workers are "progressing in comfort and independence commensurately with the increase of the nation's productive powers, nor with its actual growth of wealth." All that I seek to show is that as an actual matter of fact wages have increased, and that the standard of comfort amongst workers has actually risen.

And not only so, but, on the whole, the result of the great increase of production has been to lessen prices, and to increase the purchasing power of money in most of the actual necessaries of life. I think that this has been sufficiently illustrated already.

We must consider, in relation to what has gone before, the evidence which is given by the decrease of pauperism and of crime. And let me, first of all, deal with crime. That is the exclusive property of no class, but it is closely connected in many ways with ignorance

and want. We are not considering merely the progress of the hand-workers, but that of the whole nation. We are too apt to speak of the hand-workers as though they were the English people. They are the great majority and the very backbone of that people, but we must try more and more to get rid of this baneful idea of class, and more and more learn to consider the whole community as one. Now there have been many causes for the diminution of crime, and the lessening of abject want is only one of these. The crime which actually springs from want deserves, indeed, a milder name. There is much educated crime, and it is the worst, and, though often dealt with in a gentler way, it is worthy of the severest condemnation, for from him to whom much has been given much may fairly be required. But, upon the whole, the grosser forms of crime accompany ignorance, and education has done a great deal to lessen the number of offences. We must also remember that in the eye of the law every infraction is counted as a crime, and crimes have therefore been manufactured often in a wholesale way. Until after the Elementary Education Act became law, and the bye-laws of school boards made attendance at school compulsory, the parent who kept his child from school was guiltless. Now the number of offenders has, by these very bye-laws, and by Vaccination Acts, Board of Health bye-laws, and the like, been greatly added to. And thus we find that although the number of persons summarily convicted in England and Wales rose from 372,707 in 1868–9 to 538,930 in 1887–8, yet the number imprisoned fell from 95,263 to 78,438 in the same period. And, if we take graver offences, we find further that there were 27,187 committals and 19,927 convictions in the year 1840 in England and Wales, when our population was 15,730,813, and only 13,750 committals and 10,561 convictions in 1888, when our population was 28,609,000. We had 13,000,000 more people in the fifty years, but little more than half the number of convictions.

Again, if we take the figures of pauperism there is a great decrease in numbers, although, owing to the raising of the standard of comfort, there is a large increase in the cost per head. We find, also, that the diminution is not so constant as it is in the case of crime, although the percentage ratio to the estimated population has regularly decreased from an annual average of 4·7 in the five years period, 1855–9, to an annual average of 3·0 in the five years period, 1880–4. The actual decrease to the latest date I have been able to get is, for Great Britain only, from 1,017,380 yearly average, at a cost per head of £5·172, in the period 1855–9, to 905,106 yearly average, at a cost per head of £10. 15s. 3d., in the four years period of 1885–8. The population of Great Britain had increased in the meantime from 22,000,000 to 33,000,000.

Now, explain it as you will, we have the following results:—

YEARS.

1874-1887—Friendly Societies, £5,000,000 increase of funds; 1,200,000 increase of members.

1875-1887—Building Societies, £37,000,000 increase of funds; 2,085 increase of societies.

1838-1885—Savings Banks, £86,000,000 increase of deposits; 5,189,000 increase of depositors.

1865-1888—Co-operative Societies, £12,000,000 increase of capital; £33,000,000 increase of sales; 502 increase of societies; 795,000 increase of members.

Trade Unions (statistics not sufficiently numerous or certain).

1840-1882—Crime, decrease of 9,366 in the number of serious convictions in a year.

1855-1888—Pauperism, decrease of 112,274 in the yearly average.

I will only add a few facts about educational matters, which point strongly to the great intellectual progress which has been made in the last twenty years. Perhaps this is the most important progress of all. Nothing so fosters and furthers equality of opportunity as education, nothing else is at once so valuable a possession in itself and for itself, and so necessary and safe a stepping-stone to other things. And in this very matter there has been a new birth in England during the twenty years which have passed since the Elementary Education Act became law. Perhaps it is seen most strikingly in the fact that twenty years ago neither Cambridge nor Oxford could boast a college for women, whilst this year a woman has, in the self-same examination, handsomely beaten the senior wrangler. There are now two colleges at Cambridge and three at Oxford for women, and Holloway College has also been founded exclusively for them. We may say that, in higher education, the provincial University colleges, of which there are now eleven in England and Wales, have really come into existence. So in secondary education have the public high schools for girls, which are to be found in all of our chief towns; and rather between primary and secondary education, the great number of science and art schools and of higher grade schools. In primary education we have leaped up from 8,281 schools in 1870, with accommodation for 1,878,584 children, to 19,469 schools in 1889, with accommodation for 5,440,441 children. This is indeed a great and noble work of progress. It is true that it is very far from perfect, the teaching has been forced into ruts, there has been too violent a desire to get a quart into a pint pot; but men's eyes are now fully open to the absurdity of these methods, and teachers are to be more carefully trained, and when trained are to have much greater latitude.

The only other bit of educational progress which I shall note is the increase in public libraries. They are being added to constantly; but the chief librarian of one of the most successful (that in Newcastle-on-Tyne) tells me that there are now about 200 of these admirable institutions in England and Wales, and that the probable turnover is from 30,000,000 to 40,000,000 volumes per annum. There are more than 11,000 persons entitled to borrow books from the Newcastle Library, and its reference department is large and valuable. Anyone has the right to sit and study in a comfortable, well-warmed, and well-lighted room in the day or at night. And thus in most of our great towns the richest of all intellectual possessions are freely open to all who choose to enter in and possess them. It is impossible to over-estimate the educational and social value of this privilege.

Then, having given my reasons for believing that the material progress of the nation has been accompanied by that amelioration of the condition of the people of our country generally, to insure which is the task of all politics and progress worthy of the name, what remains to be said? Much, and in many ways.

For, we shall be told, all that has been shown really only touches the fringe of the matter. The great mass of unskilled labour, the great mass of agricultural labour, have been practically untouched by the alleged improvement. You cannot judge of working men by considering only the picked men amongst skilled labourers.

That is quite true. It is equally true that you cannot judge of working men by considering the most necessitous amongst unskilled labourers, still less by considering the residuum, which is not properly constituted of working men at all.

The true residuum consists of the absolutely incompetent, the ingrainedly idle, and the incurably vicious. There is little to be done for these, but their number is gradually decreasing.

But as for working men, skilled or unskilled, they have all shared in the advance of the last twenty-five years; not all to the same extent, none, perhaps, to the extent to which they will hereafter be entitled. I cannot attempt to state in detail the benefit they have actually obtained; that is, indeed, a task which professed economists and statisticians have found impossible. It is not necessary for the purpose of this paper, even if it were possible. All that I wish to show is that our material progress, as a nation, has not been at the expense or to the detriment of the people generally. There is and must be a displacement of labour, with consequent trouble, difficulty, and frequently distress, whenever a new labour-saving machine is introduced, and whenever we can obtain that which we have been wont to produce for ourselves more cheaply from another source. But the latter fact does not relate to foreign trade alone. The self-same

thing holds good in relation to our domestic trade. Once, much of the iron of England was manufactured in counties in the South of England which have long ceased to produce iron at all. The great Cleveland iron district has come into operation in our own time. Before 1850 there were no blast furnaces in Cleveland proper, and only thirty-eight in the North of England, and the entire make was not much above 150,000 tons per annum. Now there are 153 blast furnaces, and the make in 1889 was 2,771,181 tons. Indeed, the history of manufacture on the river Tyne during this century, and even in our own day, gives us numerous instances in which other districts have taken up branches of our industry, and so successfully that we have had entirely to abandon them. The labour which is displaced, in whatever way the displacement may be brought about, is sure to suffer, and in the case of skilled labour, where a handicraft has been attained with much labour and pursued successfully, the suffering is great, and at times irremediable. This is a matter for grave and serious concern, and every care should be exercised to minimise the evil effects of that which we must acknowledge after all is, however cruel to the individual, for the general good.

Sir James Caird, comparing the general rise in the wages of agricultural labourers with the period just before the repeal of the corn laws, puts it at 60 per cent. With that unskilled labour which is not agricultural the most important point is that the tendency of the multiplication of labour-saving machinery has been to reduce the proportion of such labour to the whole, whilst there has been a great increase in the wages of unskilled labour. Fifty years ago the average wage of an unskilled labourer was from twelve shillings and sixpence to fifteen shillings. It would not be a high estimate to place it now at from eighteen shillings to twenty-two shillings. With unskilled labour, also, the hours of work have been shortened, and the purchasing power of wage has on the whole been increased.

Let me again say that I have no wish to ignore the want of continuity of employment, the grievous uncertainty which affects, perhaps, unskilled even more than skilled labour. I doubt whether this trouble has increased during the last fifty years, but it is a great and serious one. It interferes with the possibility of thrift, and until recently it interfered with the power of combination; and yet, as a matter of fact, we do not find that thrift is less amongst unskilled labour than amongst skilled labour in proportion to the opportunity. I sometimes think that we are not quite faithful in neglecting to insist upon the great amount of distress which is preventable, and easily preventable, but only absolutely so by individual reform. How many instances all of us, who have occasion to look into such matters closely, know of men in the receipt of comparatively large wages who simply waste 50 per cent of them. The

ragged little boy who carries your bag home from the railway station tells you, "Oh, yes, father is a clever workman; he makes forty shillings a week when he works, but he never gives mother more than half, and drinks the rest." We are all of us too apt to think of reform in the general, and to overlook the fact that the State is composed of individuals, and that each of us, by the simple yet difficult process of reforming himself, can practically help to bring about the best general reform. It is so much easier to preach to others than to practise ourselves. Reform is so good as an abstract, so uncomfortable as a concrete, idea. But, like charity, and perhap with better reason, Reform should begin at home. But we must not exaggerate this matter of waste. In 1874, the total spirits consumed per head for the United Kingdom was 1·26 gallons, and in 1881 the quantity of beer consumed was 27·78 gallons, whilst in 1888 they were respectively 0·96 and 26·80 gallons. Even in this matter of strong drink there has been some progress.

Now, what is the conclusion of the whole matter? We are told that capital receives too much remuneration and labour too little. But even this discrepancy is righting itself. The return to labour is increasing, the return to capital is diminishing. Yes, you say, that is true as a percentage, but it is not true if you take the gross return to labour per head and the gross return to capital per head. The return to capital is less per cent, but greatly more in the aggregate. It is not that the capitalist gets 20 per cent where he got 15 per cent formerly. Suppose he only gets 6 per cent, he gets it on thirty hundreds, where formerly he only got 15 per cent on ten hundreds. He has lost nothing, at all events. Capital is now in fewer hands; there is more of it; the percentage return is less; the total return is much greater; more is taken from labour than there used to be.

But this is only partly true. There is more capital, undoubtedly, or there would not be the rapid progress which we have heard of, and labour would not reap its higher reward; but it is in vastly more hands, not in fewer. In the thirty years from 1850 to 1880, the number of persons assessed to the income tax upon more than £2,000 a year increased from 3,231 to 8,526. The total gross profit assessed to income tax in respect of trades and professions does not show a regular increase. It was £119,000,000 in 1865, and it is £170,000,000 in 1888, but it was £174,000,000 in 1875, and in six of the fourteen years from 1875 to 1888 it has been above £170,000,000.

I must own that I do not see how the increase of the return to capital bears upon the question of the return to labour, unless it can be shown that the increase of the capital return is greater in proportion than that of the labour return. We have seen that the

return to labour has also increased, and surely that greater return has only been possible because of the larger amount of capital which has been embarked in industrial enterprises. I cannot see the conflict between labour and capital. I cannot see that it is labour, and labour alone, which gives capital its value. Capital gives to labour as truly as labour gives to capital. Why is capital directed to industrial undertakings? In order that production may be increased. And who benefits most by the increased production? The workmen, who are nine-tenths of the consumers and gain in lower prices and higher wages. Surely no one can doubt that man was the poorest before he began to husband his resources, when everything was the direct product of labour. The workman is not better but infinitely worse off to-day in those lands where there is little capital employed in production than in those where there is much.

But it is said that it is unfair that the capital should be held in so few hands comparatively, and those who hold it are denounced by many of the speakers who raise their voices on this subject as enemies of the working man. I believe that this can be shown to be an erroneous view, and I am sure that many of those who speak so have no real knowledge of the number of large undertakings which are carried on for long years with a remuneration to capital, to management, and to insurance against risk, which is barely adequate to meet a moderate return to any of these three items. There are bad employers, and amongst the worst are those who have been themselves workmen. In our institutions which are managed by workmen the hours are not shorter, the pay better, the employed generally treated with greater consideration, than in other instances. There is a tendency in all these matters to take individual cases on either side and treat them as rules. But we need not consider this further, for most of us would agree that in the ideal state to which we all look forward as the ultimate outcome of all our political and social struggles, and for which we all alike make though by different roads, the conditions of life will be much more nearly equal than they now are. In other words, the men who supply the labour will also provide the capital.

But how is this ideal to be attained? By what paths are we to approach to it? How is this more equal division to be brought about?

I know of only two ways, saving or stealing. Both have been tried in the history of this old world of ours, but the right way has been the best—saving has gone the furthest.

And how, then, are working men to save? The answer has been already given. There are agencies existing which, if fully developed, would give the necessary facilities, and of these the most important

is co-operation fully and fairly worked in the spirit of the early co-operators, who laid down the principle that all who contribute to the making of a profit should share in the profit made.

I call this the most important agency for many reasons. In the first place the saving is made in the easiest of all ways, it is made by spending. This sounds like a paradox. It may remind some of my Newcastle readers of the youth who, having fallen into evil ways on the quayside, was sent over to Rotterdam that he might start afresh and be removed from awkward associations. In his first letter home he said that he was saving money fast, for he saved a penny upon each glass of gin he drank! But there is nothing imaginative about co-operation, although it has a high ideal.

Mr. Holyoake, its excellent historian, says:—

> Co-operation proposes that in all new combinations of labour-lender and capital-lender the produce of profits shall be distributed, in agreed proportion, over all engaged in creating the profit. Co-operation means concert for the diffusion of wealth. It leaves nobody out who helps to produce it. Those who do not know this do not understand co-operation; those who do know it and do not mean it are traitors to the principle.

But co-operation, like every great movement, demands that those who are its leaders should be men capable of much self-sacrifice. This is perhaps the true difficulty which lies at the bottom of all labour questions. Any truly satisfactory solution of them demands entire immunity from rule, and the self-sacrifice of those who are capable of leading. But that is not business, is the very reverse of business, whether business be conducted upon the absolutely individual or "devil take the hindmost" principle, or upon the absolutely socialistic or the sacrificing of those who differ principle. It has sometimes seemed to me that the very success of co-operation was its greatest danger. "The prosperity of fools shall destroy them," and it is hard for any of us to believe that we are foolish.

> Each to self an infallible priest,
> Each struts to the top of the feast,
> And says to his brother, "Thou fool,
> Sit down lower."

The one cry to-day is for the treatment of business questions in a business way. "How can we get bigger dividends?" is the problem which all are seeking to solve, excepting those who have to be satisfied without any at all. The insurance agent and the insurance society ask it, and little children are starved and beaten to death by de-humanised parents who are asking the same question, which for them is answered by the sacrifice of the lives they have had entrusted to them. The sweating tradesman, the tram company director, the co-operator himself (I have heard it said) at times, all

ask the same question, and answer it by squeezing more out of those who have the least. There is no difference in this respect between capital and labour, unregenerate human nature is the same in both. The average man will work as little as he can and get as much for it as he can, no matter who may suffer. The idea of working for others, the habitual feeling with others which makes a man careful to avoid hurting susceptibilities which he does not share, and which will not allow him to rest when another is unjustly treated, that is not altogether a natural feeling. Old-fashioned people would say that such things come by grace, but how they are to come for the new generation, who have no notion what saving grace means, is a harder question.

I do not for a moment say that co-operation, even the truest co-operation, will settle everything, but I know of none other agency which will so readily and surely permit of savings even to those whose means are most limited. And remember that, grandly as it has grown and flourished, distributive co-operation is not fifty years old, or it would be better to say that it has not been an assured success for anything like fifty years. It has as yet scarcely touched the most necessitous of all classes, the extreme poor in our big cities, and it is only gradually creeping into country places. Productive co-operation is still in its babyhood, but it has surely a good, if not a great, future before it. It has the opportunity of helping the workers to become also the capitalists in a very simple and sure way, although it would certainly not work quickly. The share of profits to which, according to true co-operative doctrine, the worker is entitled, might be accumulated for him, he receiving annually the income of his invested capital. He would share the risks of the undertaking as well as the benefits, and he would learn many things worth knowing. He would learn how many uncertainties all commercial undertakings are subject to; how small the margin is between success and failure; how which it is to be depends upon management, even in the largest concerns, ultimately upon the brains in one head, upon the capacity of the commander-in-chief to conceive, and the capacity of the generals serving under him to carry his conceptions into execution; how hands will toil and machinery will work in vain if the thought, watchfulness, prescience, genius of command fail or even falter; how it is not unfair or unreasonable that he whose labour does not end when the clock strikes, but must be ever with him, he who runs the whole risk of getting nothing, should reap more than the man who must at least, in any event, be fed and clothed. He will learn, too, how small, after all, the profits are in most cases when a very small return has been made to the capital without which the labour could not exist, and of which he now owns a part.

I do not wonder that some of our modern labour preachers accept co-operation with difficulty, and are especially anxious that the workman should not share in the profits of co-operative production.

But it is not the employed only who have much to learn. The employer has still the baneful idea of a superiority which does not come from merit. He knows only too little, those who work with their heads think only too little, of the lives of those who work with their hands. It is no question of charity, it is no question of stealing, it is the question of that which is just and right all round. No one can really understand the monotony of the labour-life of vast numbers of steady and industrious workmen, no one can contemplate the dire uncertainty of labour, no one can truly appreciate the temptations to which the unwholesome surroundings of the homes of multitudes of our fellow-men expose those who have the truest desire "to provide things honest in the sight of all men," without an infinite longing to aid, however humbly, in helping on the work of amelioration of conditions which many of us think is steadily going forward even now. It is not that we hold that things are as they should be, or as they will be, any more than the most enthusiastic of State Socialists. We only differ as to the method of applying the help which we acknowledge should be given. Higher wages, the shortest hours possible, better homes, the widest opportunities for the knowledge which is the best possession of man, and may and can be the property of all; these, and much more than these, we not only long for but work for. But we believe that the way in which these are to be obtained has, in some measure at all events, been found, and that it is wiser and safer to keep to the road which has led us so far in the right direction, rather than to try paths which, whilst seeming to lead us more rapidly to the wished-for goal, may carry us over the cliff whence there is no return. The law which is so much preached and so earnestly believed in will not work the changes which we also know must be worked.

All the schemes which I have heard of for putting that right which most men agree is wrong pre-suppose for their ultimate success the bringing about of a great moral change. That has been the end and aim of every true reformer in all times. But the reformers in times past have sought to bring about moral change by persuasion, by spiritual influence, not by command. Our labour preachers of to-day turn their backs upon such methods. They invoke the law, and look to it as to that which shall regenerate mankind. But surely they show us "a vain thing." It is more individual freedom, not less, that we want. It is not the abolition of capital, it is not the lessening of production, it is not the concentration of capital in the State, and the consequent destruction of individual liberty, which we need. It is the spirit of true brother-

hood, the opening of opportunities, the increase of production that there may be more for all, the growth of capital that there may be more production, the gradual union of capital and labour in the same hands by patient, individual effort, which we must seek after. We do not wonder that those who themselves feel the pinch and strain, and who have the power, if they had the opportunity, at once to benefit by that greater ease which less need of effort implies, should be impatient because the way before them is long. But it is long and hard for all who strive to do their duty to God and man; and to some who "only thirst for the right," and have "learned to deaden love of self," the life's journey must close before they find

> The stubborn thistle bursting
> Into glossy purples which out-redden
> All voluptuous garden roses.

They only know the thorns, and may never see what lies behind them. But there are better things in life than its pleasures, and the old preachers had a clear advantage in holding out the prospect of a truer and nobler life after death, where the difficulties and inconsistencies of this life should be adjusted, the injustice and inequality of this life redressed, and the meek, the mourners, the despised of this world, be especially the children of the Father in heaven.

The "stubborn thistle bursting into glossy purples" is true Judaic teaching. "Do well and it shall be well with thee. Obey God and thy wife shall be as a fruitful vine, and thy flocks and herds increase." But when men began to gather away from the dreamy Eastern pastoral life into great towns, and the fruitful vine simile remained true, but the increase of other temporal possessions did not, then came the Christian teaching:—

> Not once or twice, in our rude island story,
> The path of duty was the way to glory.
> He who, ever following her commands,
> On with toil of heart, and knees, and hands,
> Through the long gorge to the far light, has won
> His path upward, and prevailed,
> Shall find the toppling crags of Duty scaled,
> Are close upon the shining table-lands
> To which our God himself is moon and sun.

But our new preachers tell us nothing of God. They have said in their heart, "There is no God." Too few of them speak of duty; many appeal rather to revenge or selfishness. Instead of rejoicing that the great heart of their countrymen should be stirred with the hatred of injustice to others, and the strong sympathy which

leads to help, some of them urge that it will not put money into the pockets of the sympathisers. They preach of rights, not of duties. No great movement which will permanently raise the mass of the people can be worked out, or ever has been worked out, upon such lines.

For the soul, as well as the body, can be sick; and such sickness, if not cured, is quickly unto death. Do not dream that, as progress has been the law of the past, it must be that of the future. It is not the warlike nations of the earth alone which, one after one, have descended from their high estate. Commercial peoples also have passed away. Have we no lessons to learn from Tyre and Carthage? Are our merchant princes deaf to their teachings? For the material preaching of the present day is the property of no class; the material view is not only taken at the expense of the moral view, but bids fair to destroy it altogether. And yet it is precisely moral and not material remedies which alone can work the necessary cure. The true redemption of the whole people will never be brought about by the most marvellous material progress, but can only be won by the realisation in actual life of the teaching of every true religious reformer—the living for others rather than for ourselves—as a matter of conviction, not in obedience to law; by the practising and preaching of self-restraint, self-sacrifice, and the love which believeth, hopeth, and endureth all things—the love which never faileth. Sometimes in the far distance we seem to see the faint streaks of the dawn, but it will never ripen into the perfect day until, not this or that class, but all men have attained to a new and true moral standpoint, until they understand the teaching of the noblest leader this century has seen,

Without the religion of Duty, any great social transformation is impossible.

THE RISE AND PROGRESS OF THE INDUSTRIES OF GLASGOW.

BY ROBERT LEGGAT.

COMMERCE and industry usually go hand in hand, and in Glasgow they have done so all along, although at first the former bulked more largely than the latter. To begin with, the trade was small, and to our modern ideas insignificant. The annual fair is not thought much of nowadays, but in the twelfth century was one of the chief means of furthering the interests of the city, and of drawing towards it an increasing business. This fair was held in the kirkyard, and was under the supervision of the clergy, who, to their credit, seem to have been alive to everything that would benefit the people. The privilege of going to and returning from these fairs, without let or hindrance, was no small gain. It was in the gift of the reigning sovereign, who seems to have had almost unlimited power in civil affairs, for besides granting to the Bishop of Glasgow the right of holding certain fairs, also gave a charter to him whereby *burgenses et hommes sui* should be free to buy and sell in the Lennox and Argyll "without disturbance from our bailies of Dumbarton."

Among the first to engage in foreign trade was a William Elphinstone, a younger son of the house of Elphinstone, who, having settled in Glasgow, began to cure and export salmon and herring for the French market. Fishing at that time, and for long afterwards, seems to have been the staple industry. Indeed, till within the last sixty years or so here and there on the shores of the river, within a couple of miles of the city, stood a fisher's hut. From the beginning of the fifteenth century, at least, Glasgow merchants had curing establishments at Greenock, from whence they were in the habit of sending large consignments of fish to France, and occasionally to the Baltic; and it was no uncommon thing in the city itself to make payment in herring instead of in coin. Thus a minute of the Town Council, in 1612, bears that the magistrates—

For the great and thankful service dune be John Nicoll, wryter, in Edinburgh, to the toun, and for the expectation quhlk they haif of his service to the toun, hes ordainit the thesaurer and Mr. of Werk to send one half-barrel of herring to him,

for this yeir only, with twa half-barrels to Mr. Alexander King, twa to Mr. Thomas Hendersoan, ane to Mr. William Hay, and ane to James Winrame, with 10lb. to ilk ane of their clerkis.

No wonder herrings became known as "Glasgow magistrates." A great step forward was made by Walter Gibson, provost of the city, about 1687 or 1688. Originally a maltman, he betook himself to trading first in herring and afterwards in iron.

In one year he made, packed, and cured 300 lasts of herrings, at six shillings sterling per last, containing twelve barrels each last, and having fraughted a Dutch ship, called the "St. Agat," burden 450 tons, the ship, with the great cargo, arrived safely at St. Martin's, in France, where he got for each barrel of herring a barrel of brandy and a crown, and the ship at her return was loaded with salt and brandy; and the product came to a prodigious sum, so that he bought this great ship and other two large ships, and traded to France, Spain, Norway, Sweden, and Virginia. He was the first that brought iron to Glasgow; the shopkeepers before bought the same with dyeing stuffs from Stirling and Borrowstounness, now Bo'ness.

The report of Commissioner Tucker, who deals with this period, is exceptionally interesting. It says that—

With the exception of the coliginers (*i.e.*, college professors and students), all the inhabitants are traders; some with Ireland, with smiddy coals, in open boats from four to ten tons, from whence they bring hoops, rings, barrels, staves, meal, oats, and butter; some to France, with plaiding, coals, and herrings, for which the return is salt, pepper, raisins, and prunes; some to Norway, for timber. . . There have been some who have ventured so far as the Barbadoes, but the losse which they have sustained, by being obliged to come home late in the year, has made them discontinue going thither any more. The situation of this town in a plentiful land, and the mercantile genius of the people, are strong signes of her increase and groweth, were she not chequed and kept under by the shallowness of their river, every day more and more increasing and filling up, so that nae vessel of any burden can come up nearer than fourteen miles, where they must unlade and send up their timber and Norway trade on rafts, and all other commodities by three or foure tons of goods at a time, in small cobbles, or boats of three, foure, or five, and none above six tonnes a boate.

It is often said that the Clyde made Glasgow. Does not this report suggest that the reverse is the case—that Glasgow made the Clyde?

THE CLYDE.

From an early date the want of a waterway had been felt by the merchants of Glasgow, and at one time the people of Glasgow, Renfrew, and Dumbarton agreed to give six weeks each alternately for the deepening of the river. This arrangement did not prove satisfactory. The enterprising merchants of Glasgow fixed upon the Bailliary of Cunningham, in Ayrshire, as a suitable place for establishing a port, but the distance and the expense of transit led the scheme to be abandoned. They next offered to buy from the Dumbarton authorities a piece of ground for a harbour, but the offer was refused on the plea that the influx of strangers and sailors would raise the price of butter and eggs to the inhabitants. A site was

at length secured on the opposite side of the river, and on 13 acres of land, purchased from Sir Robert Maxwell, of Newark, the harbour of Port Glasgow was erected in 1662 by the authorities of Glasgow. Up to this time there seems to have been no quay at Glasgow. The minute of Council for July 24th, 1662, bears that—

The said day it is concludit for many guid reasones and considerationes, for the more commodious laidening and landing of boats, that ther be ane little key builded at the Broomielaw, and that the samyne be done and perfectit with the best convenience, be sight and advys of the magistratis, Deane of Gild, and Deacon Convenair.

The magnitude of the work may be judged of by the following extract, dated 13th June, 1663:—

Appoynts the key at the Broomielaw to be heightit twa stanes heigher nor it was ordained to be of befor, and ordains the Dean of Gild to try for more oaken timber, either in the Hiekirk or back galrie, for facing thereof.

A modesty harbour, indeed; nor could it be otherwise when the nature of the river is considered. It was, however, a step towards the development of the great shipping industries. The Clyde navigation was then under the direction of the provost and magistrates, and up till 1840, when the Clyde Navigation Trust was formed, all the operations were carried on under their supervision.

In 1688, the quay wasenlarged at a cost of £1,666. 13s. 4d. In 1758, Parliamentary powers were obtained to construct a weir and lock about four miles below the city, in order to give 4½ feet of water in the harbour, but this idea was abandoned, on the advice of John Goldbourn, of Chester, who recommended instead the erection of a series of jetties, so as to narrow the channel and allow the water to cut out a course for itself. In six years 117 jetties were built, and vessels drawing 6 feet of water could come into the Broomielaw. In 1806 it was determined to bring the Clyde to a uniform width, and the new operation of raising parallel dykes resulted in a further increase of the depth of water. A track 20 feet wide, from Glasgow to Renfrew, was formed, and continued in use till the introduction of steam did away with the horse tow. The river has been brought to its present depth by careful and constant dredging. It says much for the sagacity and foresight of the early merchants of the city, and also for the enterprise of their successors, that the Clyde has been raised from a shallow fishing stream to a majestic highway, which permits of vessels of 24 feet draught passing up and down. It seems a stretch of imagination to say that the Clyde, which has been called the "jaw-hole" of the city, was, even in the memory of some people now alive, "so pure that you could have made your tea with it," and that salmon abounded in it. Yet, so it was. At the end of last century the depth of water at the Broomielaw at low tide was only 14 inches, and at high tide 3 feet 3 inches. Mr. MacGeorge says:—

In 1812 our first steamer, the "Comet," with a draught of only 4 feet, grounded at Renfrew, although Henry Bell was careful to regulate her sailing so as to avoid low water. This was told to me by Mrs. Bell, who said she was on board at the time. "And what was done?" I said. "Oh," she replied, "the men just stepped over the side and pushed her across the shallow."

Over the same spot the largest vessels of the British Navy now sail with perfect freedom. To accomplish this triumph of mechanical genius over the forces of nature has cost not less than £11,250,000. The little insignificant quay, which was "heightit twa stanes," has developed into a magnificent harbour, with a series of fine docks, and a quay frontage of over six miles in length, which will be increased by the works presently going on to about nine miles. Spacious sheds for the accommodation of goods line the wharves, and cover an extent of 25 acres, and have branch lines from the main railway systems running into them. The following table of the arrivals and departures for the first six months of the last four years gives a fair idea of the extent of the Clyde shipping :—

ARRIVALS.

	First six months.			
	1890.		1889.	
	Vessels.	Tons.	Vessels.	Tons.
Glasgow..	596	616,176	540	556,278
Greenock.	164	114,934	185	155,805
Total ..	760	731,110	725	712,083

	First six months.			
	1888.		1887.	
	Vessels.	Tons.	Vessels.	Tons.
Glasgow..	545	536,155	544	506,925
Greenock.	149	105,949	169	112,733
Total ..	694	642,104	713	619,658

DEPARTURES.

	First six months.			
	1890.		1889.	
	Vessels.	Tons.	Vessels.	Tons.
Glasgow..	793	848,737	725	782,958
Greenock.	102	77,565	96	78,183
Total ..	895	926,302	821	861,141

	First six months.			
	1888.		1887.	
	Vessels.	Tons.	Vessels.	Tons.
Glasgow..	716	774,415	649	689,688
Greenock.	109	95,029	185	59,411
Total ..	825	869,444	834	749,099

The rapidity of its development is indicated by the revenue of the Trust, which was in—

	£	s.	d.
1752-70.....	147	0	10
1780	1,515	8	4
1790	2,239	0	4
1800	3,319	16	1
1810	6,677	7	6
1820	6,328	18	10
1830	20,296	18	6
1840	46,536	14	0
1850	64,243	14	11
1860	97,983	18	1
1870	164,093	2	10
1880	223,709	0	8
1890	356,202	11	3

SHIPBUILDING.

From shipping to shipbuilding is a natural transition. Of course, many centuries ago there was boat-making on the banks of the Clyde, and some half-dozen old oaken canoes, remnants of that far-

off time, which have been dug up in the city and neighbourhood, have excited great interest among local antiquarians. Boat-building, however, as a distinct industry, was not practised until the beginning of the present century. Indeed, so recent is the rise of this trade that a local chronicler, who published a carefully-written history of Govan—the great shipbuilding quarter of the city—some sixty years ago, does not so much as mention it. The early merchants had their boats built on the upper reaches of the river. They were not much better than highland gabberts. With the deepening of the river they increased both in size and number, until the Clyde and the Tyne began to rival each other in the production of the "ribs of oak." Clyde shipbuilding may be said to date from 1812—a memorable year in the history of naval construction. In that year Henry Bell launched his famous "Comet." Some twelve years previously Bell had sailed from the Clyde to the Thames in a small vessel fitted up with a steam-engine. A British man-of-war, seeing so strange a sight, gave chase. No harm came to the little craft. Bell offered the patent to the Government, who, after inspection, declined it. Nelson is said, on hearing the decision, to have remarked to the Lords of the Admiralty, "Gentlemen, if you do not take advantage of this invention, you may rely upon it other nations will." This was not, however, the first steamboat. The first paddle steamboat was constructed by Symington, in 1786, and named the "Charlotte Dundas," after a daughter of Lord Dundas. It was placed on the Forth and Clyde Canal, and drew in a strong breeze two loaded 70-ton boats at the rate of 3½ miles per hour. The proprietors of the canal objected to it, fearing it would injure the banks, and it was removed. The "Comet," regarding which so much has been said, was a little thing of 40 feet keel, 10 feet 6 inches beam, and 25 tons burden. Her engines were three-horse power. Furnished with a mast, a bowsprit, a lugsail, and four paddle-wheels, and manned by four persons, she plied for some time between Glasgow and Helensburgh. The following advertisement is from a Glasgow newspaper of August 5th, 1812 :—

Steam passage boat, the "Comet," between Glasgow, Greenock, and Helensburgh, for passengers only. The subscriber having at much expense fitted up a handsome vessel to ply upon the river Clyde, between Glasgow and Greenock—to sail by the power of wind, air, and steam—he intends that the vessel shall leave the Broomielaw on Tuesdays, Thursdays, and Saturdays about mid-day, or at such hour thereafter as may answer from the state of the tide, and to leave Greenock on Mondays, Wednesdays, and Fridays in the morning, to suit the tide. The elegance, comfort, safety, and speed of this vessel require only to be proved to meet the approbation of the public, and the proprietor is determined to do everything in his power to merit public encouragement. The terms are, for the present, fixed at 4s. for the best cabin, and 3s. for the second cabin; but beyond these rates nothing is to be allowed to servants, or any other person employed about the vessel. The subscriber continues his establishment at Helensburgh

Baths, the same as for years past, and the vessel will be in readiness to convey passengers in the "Comet" from Greenock to Helensburgh. Passengers by the "Comet" will receive information of the hours of sailing by applying at Mr. Houston's office, Broomielaw, or at Mr. Thomas Blackney's, East Quay Head, Greenock.—Helensburgh Baths, 5th August, 1812.

The "Comet" was a great success, and what wonder. The journey to the coast was a serious job then. Few of the Glasgow families could keep a house at the coast, or get into "saut water quarters" in the summer time, on account of the expense and the trouble. To get to any place on the shores of the beautiful Firth was a difficult matter. There were two ways of doing it. "It could be accomplished by taking the fly-boat down the river, or hiring a cart surmounted by hoops, covered by a blanket. By the latter conveyance there was some likelihood of reaching the destined watering-place before midnight of the day on which the party set out; but by the former the chance was that the boat required to wait on tide at Bowling, or perhaps might be detained at Dunglass for a day or two from stress of weather." The tiny pioneer of steam navigation continued to run till 1820, when she was wrecked rounding the point of Craignish. Her early success called forth a number of rivals. In 1813 she was followed by the "Elizabeth," who was guaranteed to sail at the rate of nine miles per hour; and in the following year a vessel of the same type, called the "Margery," began to ply between Glasgow and Greenock. After two or three months' service she was transferred to the Thames. The engines in the "Comet" were single land engines. The demand for engines for marine purposes caused attention to be turned to their construction, and a great improvement was effected, when, in 1814, two condensing engines, connected by cranks set at right angles, were introduced into the "Princess Charlotte." Steamers multiplied rapidly. The numbers were in—

1812	2	1815	12
1813	4	1816	17
1814	8	1818	18

As yet the steamboat had not been exposed to the open sea. Most people thought it could not live there. David Napier thought otherwise. He spent whole nights, in all weathers, on board vessels sailing between Glasgow and Belfast to make observations, and to ascertain, if possible, what form of boat would offer least resistance to the waves, and at the same time secure greatest stability. He concluded that a wedge-like bow was better suited than the rounded bow then in vogue, and so had a steamer of 90 tons built on these lines, and placed on the Belfast route. It realised Mr. Napier's expectations, and proved the practicability of *deep sea* steamers. After two years' service the "Rob Roy" became

the packet between Dover and Calais. In 1819 the "Talbot," the most perfect boat of her day, of 150 tons burden, was engined by Napier, and put on the Holyhead and Dublin run. It was intended, with a sister boat, to supplement the sailing packets, but gradually superseded the old sailing boats. The benefit to commercial men will be easily understood from the fact that, during 1821, the Irish mail had been 100 times late in arriving in London, while during the first nine months in which the steamers were employed it had only been late on two occasions. About the same time steam connection was opened up between Glasgow and Liverpool. To this route the Messrs. Burns were assiduous in their attention, and Clyde engineers and builders had to exert their ingenuity to the utmost to keep the vessels superior to anything elsewhere produced. Among the improvements of this period may be noted the application of the principle of surface condensation to marine engines, as seen in the "Post Boy;" and the introduction, in 1832, of the steeple engine, which was first fitted into the "Clyde," a vessel of 342 tons burden, and 160-horse power. In 1840 the Cunard line was started with four steamers, ranging from 1,135 to 1,175 tons, with engines of 440-horse power each. These were the "Britannia," the "Arcadia," the "Caledonia," and the "Columbia." They were all contracted for by Mr. Robert Napier. They were the first steamships to establish regular communication between America and this country, though not the first to cross the Atlantic. That had been done previously by the "British Queen" and by the "Sirus," both Clyde vessels, but the latter had taken 18½ days from the time she started from Gourock till she arrived at New York. These were all wooden steamers with paddles, and gave place to iron ships with paddles, which in turn made way for the iron screw steamer, now almost universally in use. About the year 1843 shipbuilding and marine engineering were combined by Napier, and other firms followed suite. Engineer and builder were on the outlook for further improvements. Mr. John Elder joined an old-established firm, with the aim of reducing the consumption of coal without reducing the speed of the vessel, and after many experiments introduced a combined high and low pressure cylinder engine in the "Brandon," in 1854. On the trial trip the consumption was 3¼lbs. per horse power per hour, while for other vessels of the same size it was 4lbs. and 4½lbs. per horse power. It is impossible to follow all the technicalities of marine engineering. Great improvements have been effected both on engines and boats, among which mention need only be made of the triple expansion and quadruple engines, and patent air-tight bulk heads, used in some of the larger passenger vessels. When the British Association met, in 1840, the subject of iron boats received considerable attention. In 1819 an iron boat,

called the "Vulcan," had sailed on the Monkland Canal, and in 1831 the "Fairy Queen," built of iron by Neilson, of Oakbank, sailed between Glasgow and Largs; but it was not until nearly the middle of the century that iron came into general use for boat-building. When it did, most of the vessels were at first of a composite character—that is, the ribs were of iron and the cover of wood. Gradually the builders came to prefer the iron cover to the wooden, and in 1872 there were no composite vessels turned out from the Clyde yards. But iron, too, has had to give way to more powerful rivals. The improvements in the manufacture of steel brought that material within the range of shipbuilders, who, since its first introduction to shipbuilding in 1878, have more and more preferred it. It may now be considered as the material of which ships are built. The following table shows how steady has been its adoption:—

	Total Tonnage.	Tonnage of Steel Vessels.	Percentage of Steel to total Tonnage.
1879.....	174,750	18,000	About 10¼
1880.....	241,114	42,000	,, 17½
1881.....	341,022	66,609	,, 19½
1882.....	391,934	108,254	,, 27⅝
1883.....	419,664	129,651	,, 31
1884.....	296,854	133,670	,, 45
1885.....	193,458	92,677	,, 48
1886.....	172,440	116,932	,, 68½
1887.....	185,362	148,596	,, 80
1888.....	280,037	269,480	,, 96
1889.....	335,201	326,136	,, 97·2

The fluctuating nature of the trade will be best understood by a glance at the exact tonnage returns for the last thirty years, which are as follows:—

1889	335,201	1873	232,926
1888	280,037	1872	230,347
1887	185,362	1871	196,229
1886	172,440	1870	180,401
1885	193,453	1869	192,310
1884	296,854	1868	169,571
1883	419,664	1867	108,024
1882	391,934	1866	124,513
1881	341,022	1865	153,932
1880	241,114	1864	178,505
1879	174,750	1863	123,262
1878	222,353	1862	69,967
1877	169,710	1861	66,801
1876	174,824	1860	47,833
1875	211,824	1859	35,709
1874	262,430		

CANALS.

MENTION has already been made of an iron boat, called the "Vulcan," which sailed on the Monkland Canal. The canals were a great feature of Glasgow, before railways came into existence. In and around the city there were several. The earliest was the Forth and Clyde Canal, started in 1768, and completed in 1790. The original capital subscribed was £150,000, but this sum, along with a loan of other £50,000, was soon swallowed up, and but for the aid of the Government, who gave a grant of £50,000 out of the forfeited estates of Scotland, the probability is that the undertaking would have remained in an unfinished condition for some years at least. It is still in use. Its length is 35 miles from sea to sea, with 3½ miles for side branches. It permits of the navigation of vessels of 19 feet beam and 8 feet draught, and has 39 locks, each with a rise of 8 feet. The honour of being the scene of the first experiment in steam navigation belongs to it. Here, in 1839, the novel idea of towing a number of sailing boats by means of locomotive engines was successfully tested. "The passenger boats," says a historian, recording the event, "almost instantly shot along at the rate of 16 or 17 miles per hour, and were maintained at that velocity, with a very small expenditure of steam." The revenue for that year amounted to £95,475. 8s. 7d. The next to be constructed was the Monkland Canal, opened in 1792. It had a somewhat chequered career. Commenced in 1770, it had, after a few years, to be abandoned for want of funds, caused by the stagnation of trade consequent on the American war. Ultimately it was finished by a private firm. It is strange to learn that the next venture—the Glasgow, Paisley, and Ardrossan Canal—was caused by the seeming hopelessness of being able to open up the Clyde for navigation. The good "Fathers of the City" were determined to have an outlet to the sea, and in 1807 the first sod of the new canal was cut. The undertaking proved more expensive than had been anticipated. Owing to that, and the fact that the operations of the Clyde Trust were becoming highly successful, the western terminus of the canal was placed at Johnstone. This portion of the work involved an outlay of £130,000—more than was estimated would be sufficient to carry it on to Ardrossan. It was known as the Glasgow, Paisley, and Johnstone Canal. Within the last few years it has ceased to be; the Glasgow and South-Western Railway Company having filled it up, and laid a new line over its course. In connection with this canal the Earl of Eglinton nearly ruined himself trying to make the harbour of Ardrossan sufficiently commodious for the expected traffic.

RAILWAYS.

THE iron horse, because of its cheapness, its speed, and its power, has revolutionised the carrying trade of the country, and nowhere is this more apparent than in Glasgow. The locomotive and the Clyde have been among the strongest factors in the development of the city. This is what might have been expected. It was in Glasgow that James Watt made his great discovery, though in Newcastle George Stephenson perfected it. Many of the earliest locomotives in the district came from Stephenson's establishment. They were primitive enough affairs. A picture of the railways then would be interesting. Loose management, stone sleepers, musty carriages or open trucks, want of signals, frequent accidents—these were some of the features of the railway system of 1830–50. There was no railway racing then; quite the reverse. The Aberdeenshire farmer was not a hopeless cynic who said, "If I am no' in a hurry, I tak' the train; but if I am, I walk it." Passenger traffic was not much cultivated, the pleasures of sight seeing having not yet been discovered by the majority of the people. The Newtyle Railway claims, on account of its seniority, the place of honour among the Scottish railways. The Monkland and Kirkintilloch line, opened in the early part of 1831, occupies the second place; and the Glasgow and Garnkirk, opened on September 27th of the same year, comes third. The last two were engaged almost wholly in the coal trade; the last passed into the hands of the Caledonian Company in 1845. In 1839 the Ayrshire Railway was opened for traffic between Ayr and Irvine, and four engines were sufficient to work it. This gave the first direct communication between Glasgow and Ayrshire, and formed the nucleus of what is now known as the Glasgow and South-Western Railway. In 1841 the Glasgow and Greenock line was opened, with a capital of £400,000 in shares and £133,333 in loans. This proved insufficient, and it passed into the possession of the Caledonian. Up till 1853, the total sum expended on it was £856,458. In 1842 the old Glasgow and Edinburgh, which in a few years became the North British, was started; and the Caledonian, working with that spirit of enterprise which has ever characterised it, pushed its way south till, in 1848, it entered Carlisle. A network of railways covers the town, and the local lines, together with an efficient tramway system, make Glasgow, in point of public conveyance, one of the most favoured cities not in the kingdom alone, but in Europe.

THE LOCOMOTIVE TRADE.

THE first locomotives were got from Newcastle, and were made by Stephenson. Glasgow engineers soon entered the trade. In 1831, when the Monkland and Kirkintilloch line was opened,

Murdock and Aitken, of the Hill Street Foundry, off Gallowgate, supplied the engines. Other firms did the same for other companies. Among these, J. M. Rowan built the "Boanerges" and the "Borealis" for the Slamannan route, and Stark and Fulton, North Street, Anderston, the "Mercury" and the "Mazeppa" for the Ayrshire Railway. These last were four wheeled, 12-inch inside cylinder engines, and cost about £1,250. But a new era was about to dawn, and a new industry created. The rapid extension of railways, and the consequent larger demand for engines, led Messrs. Walter Neilson and Co., who were engaged in the construction of land and marine engines, to turn their attention exclusively to locomotives. Under the fostering care of the late Mr. Neilson, and those who at different times were associated with him, Glasgow has become not simply the locomotive centre of Scotland, but of Great Britain. Difficulties were not wanting. First of all there was the difficulty of finding suitable workmen, and next the difficulty of finding orders. Fortunately the three great Scotch railway companies—the Caledonian, the North British, and the South-Western—showed their appreciation of Scotch enterprise by placing their orders with Messrs. Neilson, who at first had their works near the centre of the city in Hydepark Street, but who, in 1860, removed to the now world-famous Hydepark Works, Springburn, where the trade has continued year by year to increase until these works are the largest of the kind in Scotland. An idea of their extent may be formed from the fact that during the first three months of the past year no less than 50 large locomotives were turned out ready for the road. In 1865, the Glasgow Locomotive Works were started by the late Mr. Henry Dübs, and by November, 1867, the output of the new firm had been 200 engines. Two years ago Messrs. Sharpe, Stewart, and Co., the Manchester tool makers, came into possession of the recently-erected Clyde Locomotive Works. Their average output is from 80 to 100 engines per annum. In the early days of locomotive building, contractors were delighted with orders for two, three, or five engines; now they are shy of such small orders, having become accustomed to receive instructions for 12, 20, 50, and even 100 engines of the same type. Most of the work goes to India, China, or South America.

Besides the contracting shops, the Caledonian and the North British Companies have each their central works in Glasgow for the manufacturing of railway plant. The Caledonian's were at first in Greenock, but in 1856 they were transferred to St. Rollox, where under the care of various superintendents they have been greatly enlarged. In 1841 the Edinburgh and Glasgow Railway, now the North British, opened their shops at Cowlairs, and in the following year turned out their first engines, the "Hercules" and the

"Sampson," which were specially constructed for the heavy incline from Queen Street Station. Both engines were discontinued after five years, and a stationary engine with steel rope substituted. The Glasgow and South-Western Company had works on the south side of the river till 1856, when they were removed to Kilmarnock. At present not less than 9,000 persons are employed in this trade alone. The present locomotive is a vastly superior engine to that seen on the Glasgow and Garnkirk line. The "Wee St. Rollox" of 1831 was considered a wonderful machine, for it could draw eight or ten loaded wagons of an aggregate weight (excluding engine and tender) of 40 tons, over a gradient of 1 in 144, at a speed of 20 miles per hour. Its modern successor can with ease take 50 or 60 wagons, representing a load of 660 tons, over a much heavier gradient, at a speed of 50 miles per hour.

ENGINEERING AND MACHINERY.

It is impossible even to name the various branches of the engineering industries. The place is full of them, for, as Emerson says, "Machinery has been applied to all work, and carried to such perfection that little is left for the men but to mind the engines and feed the furnaces." One important branch is the manufacture of sugar-making plant. The early connection of the Glasgow merchants with the sugar plantations gave it the start, and once fairly under way the makers pushed their wares so hard that the trade, from being merely a West Indian one, has become world wide. Several large works are devoted almost exclusively to it. No effort has been spared to keep the lead, and the result has been the invention of some of the most perfect machinery of the day. A single shipment of sugar plant is not unfrequently valued at £12,000 or £15,000.

The sewing machine is one of the greatest triumphs of modern science. It is not too much to say that it has brought about a condition of things before undreamt of. The busy housewife has learned the value of it; the seamstress and the tailor have come to appreciate its usefulness. It is an entirely modern invention. "While Hood," says the *Times*, "was composing the 'Song of the Shirt,' and painting with the tints of despair the poor seamstress slaving in her garret, a mechanic, almost equally poverty stricken, was working out in an American garret the means of her emancipation." No mechanical invention can emancipate poverty, though it may help. Whether it is doing so we cannot at present inquire. Though Elias Howe, junior, was the inventor of the sewing machine, it was an agent of the Singer Company that first introduced it to Glasgow. The Howe Company at first carried on business in a temporary erection, but in 1873 they opened a large factory in

Bridgeton. The Singer Company, who had likewise works in Bridgeton, turned out something like 80,000 machines per annum, which, since the removal of the works to Kilbowie, has been considerably augmented, and in 1889 they sent out no less than 325,000 machines. Kimball and Morton have also premises capable of turning out 5,200 machines per annum. These three companies have practically swallowed up all the smaller concerns; a few, however, continue, in spite of their powerful rivals, to hold a place in the struggle for existence.

The want of space must be the apology offered for not noticing a host of other engineering industries. To mention boiler-making, bridge-making, electrical apparatus makers, gas engines, brass and iron founding, &c., would require not an article but a book.

IRONWORKS.

Glasgow is situated in the midst of the Scottish coalfields, and so rich in coal and ironstone is the district as to have won for itself the name of the "black country." A visitor, standing on any prominence to the north of the city on a clear winter's night, would call it rather the "light country," for as far as eye can see to east and west the horizon is aglow with the reflection of furnace lights. Among the articles brought back from the Continent by the Glasgow merchants in exchange for herring were salt, brandy, and iron. The Walter Gibson already mentioned was the first to import iron direct to the Clyde. He got it from Stockholm, and the quantity may be judged of by the fact that a keen litigation was carried on between a German and a Swedish house concerning two tons of iron shipped from Stockholm. But even the cautious Scot could not remain for ever dependent upon the equally cautious German, and in 1760 the Carron works, the most remarkable of the kind, were started near Larbert. In the vicinity were coal, iron, and water. Carron grates and Carron guns became household words. The artillery train of the Duke of Wellington consisted of guns made at Carron. The first furnaces erected in the immediate neighbourhood of Glasgow were those at Clyde, a village a couple of miles or so without the present city boundaries. This was in 1786. In that year two furnaces were built, in 1798 a third was added, and at the present time there are six. Nearly the entire output was, in these early days, turned into cannon and weapons of war. Here Mr. Beaumont Neilson carried on his experiments, which resulted in the discovery of the hot blast—a discovery which wrought nothing short of a revolution in the trade. Iron-making developed with extraordinary rapidity. Big profits realised for shrewd investors princely fortunes. Men brought up in the humblest spheres of life found themselves in a few years in possession of incomes compared

to which that of many a noble lord is as nothing. To the Addies, the Bairds, and the Dixons, it proved a veritable El Dorado. The only furnaces within the municipality were those of Messrs. Dixon, built near the now defunct village of Little Govan. Bessemer's early process for removing sulphur and phosphorus from the molten pig, and also Siemen's gas furnace, were tried at these works without success. Great improvements in the construction and in the working of these furnaces have taken place within the last few years, and slowly, but surely, the open furnace is disappearing from the land. Although only one of these ironworks was within the city, yet all were intimately connected with it, and helped to make it the commercial metropolis of the west. The works were:—

Carron.	Clyde.	Castlehill.
Crammond.	Omoa.	Shotts.
Devon.	Govan.	Quarter.
Balgonie.	Gartsherrie.	Calderbank.
Glenbuck.	Summerlee.	Wishaw.
Muirkirk.	Langloan.	Coltness.
Wilsontown.	Carnbroe.	Dundyvan.
Calder.		

At least eight of these have disappeared, and of some of them not even a vestige remains.

Alongside the blast furnace sprang up the forge and the malleable ironwork, with its puddling furnace and rolling mills. Of the latter, Glasgow had five; of the former, two conspicuous examples within her bounds. The Parkhead forge was opened as a branch establishment of Robert Napier and Sons, shipbuilders. It has passed now into different hands, but, having regard to past reputation and present gain, the machinery and plant have ever been kept abreast of the time. From the Parkhead and the Lancefield forges have issued most of the mammoth castings which, within the last twenty years, have been requisite for the construction of the best ocean-going steamers. Crank shafts, propeller shafts, stern and rudder posts, frames, &c., innumerable, have been made there. When the "Great Eastern" was made it was reckoned that only one forge in the world could supply the forgings, and that was the Lancefield. The propeller shaft of this world's wonder—which, alas, within these few months past has been broken up and sold for scrap iron: *Sic transit gloria mundi*—was 47 feet long, and weighed 35 tons, the crank shaft 31 tons, and the stern frame 25 tons. It has been said, "When a shipbuilder on the Adriatic, or the Baltic, or the Seine, or the Rhone requires a stern frame for an iron vessel of 500 or 1,000 tons burden, he will in every case find one or two forges in his own locality or country the proprietors of which will pride themselves in being able to make such a large forging, but when it comes to a stern frame of a 5,000 or 6,000

ton ship the case is different. There are in all Europe only the Government establishment of Russia, the forge of Messrs. Marrell, in France, one or two forges on the Thames, and some three or four on the Clyde equal to the task." If we add to the list Sheffield, that statement remains substantially true to the present day.

Of late years steel has for very many purposes put iron out of the market. The steel trade commenced in Scotland, in 1873, with four furnaces. In 1877 there were 14 furnaces, with an output of 30,500 tons. In 1880 the furnaces had increased to 47, and the output to 100,000 tons. In 1885 there were 75 furnaces, giving 300,000 tons; and at present there are about 100 furnaces working, giving an annual yield of about 320,000 tons. These are chiefly producing plates for boilers, ships, bridges, &c. The rail trade is not followed now, though there is one tyre mill in the city. About 15,000 men are employed directly in the industry, and their wages range from £2 to £15 per week, according to the kind of work and the class of mills.

COLLIERIES.

Nearly all the industries are more or less dependent upon the supply of coal, and a general strike among the colliers throws, in the course of a couple of weeks or so, thousands of workmen within the city out of employment. Other citizens, too, suffer, for the dark canopy which frequently obscures the sun in summer, and covers the city with Egyptian darkness in winter, is the smoke cloud from thousands of household fires. Yet, though Glasgow is so dependent upon the collier, it is a rare thing to see one with his grimy face and greasy clothes within her borders. On the outskirts they are in abundance. So early as August 19th, 1578, it is stated in the Burgh Records that the Archbishop of Glasgow had let

> The coil heuchtis and colis withtin the baronie of Glasgow for the space of three yeris, for the yevilie payment to the said reverend father of forty pundis money, togeddir witht threttene scoir and ten laidis of colis.

The rent of all the coal and the use of the shafts within the barony was, therefore, only £5 per annum, together with 270 laids of coal. A laid is supposed to have been 320lbs., or about the burden of a pack horse. It cost 22 pence Scots, or less than 2½d. sterling. In 1630, we find a John Gray, a zealous covenanter, beginning to work the coal on the lands of Carntyne. Like most pits of the time, entrance was had to it by an *in gaunee;* and the mineral brought to the surface was placed in bags and put upon the backs of Shetland ponies for conveyance to the city. The colliers were practically slaves, and remained so till 1775. They were bought and sold with the ground. It is related that an ancient tree stood on the lands of Carntyne, beside which the money brought from Glasgow for

coal during the plague was first boiled in order to be disinfected. It is impossible to ascertain the output at that time. In 1700 Little Govan Colliery was opened by Mr. Rae, and the Camlachie by Mr. Walkingshaw, of Barrowfield, whose daughter became notorious as the "mistress" of Prince Charlie, and who exercised so powerful an influence over the destiny of that unfortunate prince. The water in the pits at Carntyne was at first pumped out by means of machinery driven by a windmill; afterwards by a horse-gin. These must have been happy days for careful housewives, for coal, in 1742, only cost 1s. per cart of 10 cwt. In 1768 they went up to 2s. 6d. per cart; and as the coal masters—five in all—had a monopoly of the Glasgow markets, in 1776 the price was raised to 3s. The annual output in 1778 was 295,500 carts, of which 181,800 carts of 12 cwt. were consumed in the city, and the rest exported from the Broomielaw and sold at Greenock and Port Glasgow. In 1870, 314,758 tons were exported; in 1880, that had increased to 424,559 tons; and in 1889 to 1,460,292 tons. The prices continued to rise steadily, and in 1799 the cart cost 6s. 6d. The following shows that the rise was not by fits and starts:—

In 1790-2 the cart cost 3s. 6d.	In 1796 the cart cost 4s. 6d.
„ 1793-5 „ „ 4s. 0d.	„ 1797-8 „ „ 5s. 0d.

In 1799 the cart cost 6s. 6d.

A large export trade is done. The undernoted weekly return, for the week ending August 16th last, taken at random, reveals the position Glasgow occupies in the coal trade. The table shows the shipments of Scotch coal for the week and for the corresponding week of the previous year, as also the yearly totals up to that date:—

	Last Week. Tons.	Corr. Week. Tons.	1890. Tons.	1889. Tons.
Glasgow—Gen. Ter.	23,223	12,201	569,470	525,580
„ Queen's Dock	17,483	13,123	439,122	364,568
Greenock	5,212	4,576	73,672	106,517
Ardrossan	5,900	2,300	124,130	97,154
Troon	7,442	8,335	193,397	196,597
Irvine	3,168	2,530	101,796	89,828
Ayr	9,801	9,062	286,002	275,970
Grangemouth	21,077	20,718	564,444	518,987
Granton	3,508	3,823	89,210	65,901
Leith	8,944	16,860	213,134	161,206
Bo'ness	6,778	11,850	268,884	251,828
Burntisland	19,423	16,084	397,334	421,191
Methil	17,554	13,973	371,738	318,495
Charlestown	1,980	2,213	48,830	61,813
Tayport	560	857	17,638	21,375
Alloa	1,317	1,603	40,456	36,300
Totals	153,370	140,108	3,804,757	3,513,310
Increase this week			13,262 tons.	
„ „ year			291,447 „	

TEXTILE INDUSTRIES.

One of Glasgow's earliest and, till about the beginning of this century, staple industries was weaving. So far back as 1528 the Webster craft was established as a separate trade corporation, with all the privileges and powers which, in mediæval times, that implied. The trades guilds, or corporations, were all powerful then in regard to matters affecting trade, and evidently were strong believers in protection. They did not believe much in competition. The Incorporation of Weavers ordained that "every Webster to landward that comes within the said town, and takes the stuff thereof, shall pay ilk time they are demanded one pund of walx to the light of the altar, together with ane free denner to the maisters of the said craft." The Town Council took a large share in encouraging and fostering trade. They regulated the number of master craftsmen as they now do publicans, and, as a rule, the judicious exercise of their powers brought an advantage to the town. In 1638, desirous of advancing the weaving industry, they granted a free site of the great lodgings in Drygate, which had formerly belonged to the Cathedral, to Robert Flemying and partners, to erect a factory thereon. The Incorporation of Weavers protested, and ultimately a compromise was effected, the firm coming under an obligation to employ only freemen of the incorporation. This was the beginning of the factory system in Glasgow. It is recorded that, in 1651, Glasgow traders did a brisk trade in plaidings with France. The various articles of manufacture are mentioned by Franck, who, visiting the town in 1658, says:—

> We are to consider the merchants and traders in this eminent Glasgow, whose storehouses and warehouses are stuffed with merchandise, as their shops swell big with foreign commodities and returns from France and other foreign parts, where they have agents and factors to correspond and enrich their maritime ports, whose charter exceeds all charters in Scotland, which is a considerable advantage to the city inhabitants, because blessed with privileges as large, nay, larger than any other corporation. Moreover, they dwell in the face of France and a free trade, as I formerly told you. Nor is this all, for the staple of their country consists of linens, friezes, furs, tartans, felts, hides, tallow, skins, and various other small manufactures and commodities not comprehended in this breviat.

Notwithstanding this glowing picture the amount of weaving must have been comparatively small, for it was not till after the union of Scotland and England that any great strides were made in this industry. The idea of union was not well received in Glasgow, and when the treaty by which the two countries became one was under consideration an excited mob of Glasgow citizens, having stormed the Tolbooth and seized the town's arms, determined to march on Edinburgh and disperse Parliament, rather than suffer the treaty to be concluded. A march of a

few miles into the country brought them to a different frame of mind. The union opened up new avenues for the energy and enterprise of the merchants. One of these was the free exchange of textile goods between the two countries. In 1720 the value of white linen sent to England was estimated at £100,000, and the brown linen would be about the same value. England sent in return about £400,000 of woollen goods. The American colonies and the West Indies also took large quantities of the linen goods. These goods, for the most part, were of domestic manufacture. In every house was a spinning-wheel, at which the mother of the family laboured assiduously; and in the loom shop adjoining, the father, and the younger members of the household or the apprentice, kept the shuttle busy. There were no idlers. An old ballad says:—

In ilka house, frae man to boy,
A' hands in Glasgow find employ;
E'en little maids, wi' meikle joy,
Flow'r lawn and gauze,
Or clip wi' care the silken soy
For ladies' braw.
Their fathers weave, their mothers spin
The muslin robe, sae fine and thin.

It was no uncommon thing for a boy of seven or eight years of age to be set to learn the loom. Though thus early made acquainted with toil, they found time for storing their minds with useful information, and exercising their mental faculties in the discussion of religious and political subjects. Nowhere could a more intelligent set of men be found than the weavers. During the decade (1740–50), most of the inhabitants of the New Vennel were weavers in easy circumstances. They were the proprietors of the houses in which they lived, and kept themselves and their families in constant employment. But the inventions of Hargreaves, Arkwright, and Crompton, and the introduction of steam power gave a death blow to this system. With the new inventions came a new condition of things. Large factories took the place of small shops, and hand-loom weavers from being the best-paid men became about the worst. The first power loom in Glasgow was wrought by a Newfoundland dog placed inside a revolving drum, but Newfoundland power was not a success. The transition from the old to the new state naturally threw many people out of employment, and caused much suffering in the city. Bands of workmen paraded the streets with threatening looks, and the magistrates spent £117,000 in relieving the distress. The miserable and abject condition of the decayed weavers was such as to call for a Government Commission, and in 1838 the Commission reported that hand-looming weaving as an industry had sunk hopelessly low. They gave the following table, showing the rate paid per ell on a certain quantity of pullicat, and also the weekly earnings:—

1806	1s. 3d.	per ell. =	£1. 12s. 6d.	per week.
1820	0s. 5d.	„ =	0. 10s. 0d.	„
1830	0s. 3d.	„ =	0. 5s. 6d.	„
1838	0s. 3½d.	„ =	0. 6s. 7d.	„

The late Mr. Reid, better known as "Senex," writing in 1850, says:—

A few weeks ago I happened to be taking a walk on Sauchiehall Road, when I was stopped by a well-dressed elderly gentleman, who accosted me by name, asking me how I was. I thanked him, and said I was pretty well; upon which he said, "Perhaps you have forgotten me." I said that really I could not remember ever having seen him before. He then said, "About 54 years ago I was one of your weavers. You were the first manufacturer in Glasgow who gave out a lappet web to be woven. I wove that web. You paid me 3s. 6d. a yard for weaving it; now I can buy similar lappet cloth, bleached, and ready for the market, at 3½d. per yard." I then said, I pray how much of that same falls to the share of the poor weaver? He answered, "Oh, it is all power-loom work nowadays. Machinery, and machinery alone, has effected all these wonderful changes in our manufactures."

The stuff chiefly woven up to 1780 was a coarse kind of linen, but about that year cotton began to take its place. Nearly 3,000 looms were engaged in the production of linen fabrics, lawns, and cambrics, in the parish of Barony alone. Notwithstanding it was bolstered up by protective duties, it steadily declined in the west, but strange to say began to flourish on the east coast, and continues to do so to the present day.

Two power looms, built on the lines of Dr. Cartwright's invention, were in 1793 fitted up in a cellar in Argyle Street. About this time there was rapid progress in many directions. Improved machinery led to improved fabrics. Cotton mills rose on every hand. The manufacturers also tried the making of muslins, but, being unable to produce a thread fine enough for the purpose, forty women were brought over from France, and settled in Anderston, to spin fine yarns. This being accomplished, further advances were made. In 1780, Henry Monteith succeeded in making an imitation of the famous Dacca muslins; and in the first year of the century a factory, with 200 looms, was erected at Pollokshaws for the manufacture of various kinds of muslins and ginghams. This trade continued to flourish till well on in the fifties, when by the exigencies of the time many firms withdrew from it, and since then it has continued to decrease.

In 1818 there were no less than 53 cotton mills in operation producing 100,000,000 yards of cloth per annum, and 18 factories with steam power producing 8,400 pieces weekly. A factory report, presented to Parliament in 1834, states—

That in Scotland there are 134 cotton mills; that with the exception of some large establishments at Aberdeen, and one at Stanley, near Perth, the cotton manufacture is almost confined to Glasgow and the country adjoining, to the

distance of about twenty-five miles radius; and all these cotton mills, even including the great house at Stanley, are connected with Glasgow houses, or in the Glasgow trade. In Lanarkshire, in which Glasgow is situated, there are 74 cotton factories; in Renfrewshire, 41; Dumbartonshire, 4; Buteshire, 2; Argyleshire, 1; Perthshire 1. In these six counties there are 123 cotton mills, nearly 100 of which belong to Glasgow.

The total number of persons employed was 17,969. In 1854 there were 107 mills in Glasgow, and 27,264 workers; and in 1861, with a considerable increase in the trade, 28,489 persons were employed.

The evenness of the texture and the beauty and fastness of the dye, known as Dale's dye, won for Glasgow goods a preference all over the world in the early cotton days. Turkey-red dyeing still constitutes a considerable industry in the district. It was introduced into Scotland by David Dale, father-in-law of Robert Owen, who brought a French dyer from Normandy to manage his works at Dalmarnock; hence the name, "Dale's dye."

There are a large number of bleachfields round the city. It was an old custom for the weavers to bleach their own yarns, and for this purpose a plentiful supply of fresh water, a grassy flat, clear air, and a strong sun were required. As the city grew, bleachers had to go further afield. In 1728 or 1729, bleachworks were established on the banks of Loch Lomond; afterwards in the Blane Valley, the Vale of Leven, and elsewhere. It took several months, by the sun-exposure process, to make linen white. The fine kinds were usually treated in this way, and, because of the grass fields or lawns on which they were spread, received the name of "lawn;" the coarser stuffs were sent to Holland, and hence the name "Holland," a name retained to this day by a kind of unbleached linen. The experiments of Berthollet with chlorine led James Watt, the engineer, about the year 1789, to try it as a bleach powder at a work near Glasgow. The process was successful. In 1798, Mr. Charles Tennant took out a patent for making a solution of chloride of lime, and a year later managed to make this substance in the solid. The benefit of the discovery was soon recognised, and ever since the chemical process has been largely used in all the important fields.

Carpet weaving, though not one of the chief industries, was formerly carried on on a more or less limited scale. The Scotch carpet, or as it is sometimes called the Kidderminster carpet, has its chief centres in Kilmarnock and Bannockburn, but Glasgow is the home of the patent Axminster. The Scotch carpet originally had only two colours, and was reversible. It is poor in texture and meagre in design, and although the three-ply carpet is a great improvement it is wanting in that richness, softness, and durability which is characteristic of some of the more expensive articles. It had been the practice for many years to manufacture at

Axminster an imitation of the carpets of Persia, India, and Turkey. It was a laborious process. The warps were knotted into small tufts of wool of similar or separate colours, and tied to the web by hand. When a row of these was completed, it was bound together by a shot of weft. This was repeated till the carpet was finished. In 1839, Mr. J. Templeton patented an invention whereby the hand labour was dispensed with, and at the same time another industry added to Glasgow.

Perhaps it would be fitting to bring in here, at the close of the principal present-day manufactures, a few figures which will not only show the value of these industries, but also show the countries on which they are dependent for their up-keep.

The following table shows the destinations of the principal exports during the second quarter of 1890:—

	India and China.	United States and Canada.	West Indies and South America.	Africa and Egypt.	Australasia.	Continent.	Totals.
	£	£	£	£	£	£	£
Cotton Goods....	907,690	133,046	36,100	2,825	21,306	2,112	1,103,079
Linen Goods	4,045	236,733	5,710	1,121	2,030	55	249,694
Steel M'nufacture	28,162	46,323	6,715	5,110	3,134	26,509	115,953
Iron Manufacture	186,780	49,776	153,262	16,580	38,524	51,776	496,698
Machinery.....	46,970	9,769	33,722	9,284	27,413	12,749	139,907
Sewing Machines	3,404	505	1,136	2,510	..	70,369	77,724
Locomotives	47,950	..	16,000	2,101	..	24,228	90,279

The following statement gives the shipments during the first half of 1890, also those for the same half of the preceding three years for the sake of comparison:—

	First half, 1890.	First half, 1889.	First half, 1888.	First half, 1887.
	£	£	£	£
Cotton Goods	2,270,668	2,227,192	2,208,443	2,991,681
Linen Goods.....	462,545	361,286	293,531	245,664
Steel Manufacture	197,251	156,435	166,408	206,687
Iron Manufacture	929,253	593,774	691,283	610,546
Machinery	245,282	226,608	241,055	207,179
Sewing Machines.....	113,954	122,671	56,436	71,954
Locomotives	180,748	87,228	185,984	135,843

TOBACCO TRADE.

HAD the citizens of Glasgow who were so angry at the union been gifted with second sight, they would, instead of seizing the town arms and determining to march on Edinburgh, have declared a day of rejoicing, and kindled bonfires in all the public streets in honour of the event. No better fortune ever fell to a country. It established daily communication with the other side of the Tweed, and also opened the door to the American colonies for Glasgow enterprise. The Virginian trade was carefully cultivated, but not without much trouble. At first, ships engaged in the traffic were chartered from Whitehaven, and the goods taken out from Glasgow were bartered for Virginian leaf. In 1717, the merchants of Bristol protested to the Commissioners of Customs, in London, against the fairness of the Glasgow traders; but it was found this remonstrance was occasioned by jealousy, and a feeling of chagrin at being undersold by the Glasgow merchants. Four years afterwards they were accused of defrauding the revenue, but the Lords of the Treasury exonerated them in the following terms:—

> The complaints of the merchants of London, Bristol, Liverpool, Whitehaven, &c., are groundless, and proceed from a spirit of enmity, and not from a regard to the interests of trade, or to the king's revenue.

In 1722, Parliament sent down Commissioners to Glasgow, and imposed such regulations on the trade as seriously to hamper it for some years. Gradually the difficulties were surmounted, and in 1740 the old system of barter was abandoned, and the larger houses established agents or factors in Virginia. These received the goods, and sent back in return tobacco. A system of credit, similar to what is carried on at present in various small industries, was inaugurated. These agents advanced money to the planters on condition that they would receive the crops of tobacco, and by the judicious exercise of the power thus conferred, contrived to obtain almost a monopoly. In 1772, out of 90,000 hogsheads of tobacco imported to Great Britain, Glasgow took 49,000 hogsheads; and in 1774—the year before the declaration of the American War of Independence—57,143 hogsheads, the property of forty-two merchants, came to Glasgow. Only a small proportion of that was for local consumption, the most of it being again exported to the Continent. Great fortunes were realised in the trade, and there arose a class of men known as tobacco lords, or Virginian dons, who lived in great state, and whose insolence at times knew no bounds. The tobacco lords had a special part of the "plainstanes," the fashionable promenade in front of the Cross, reserved for themselves, and here they might be seen any day at noon strutting about with bushy wigs and long scarlet cloaks, and attended by their liveried servants. They were held in great awe. If a master tradesman wished to

speak to one of these lords he had to walk "on the other side of the street until he was fortunate enough to catch his eye, as it would have been presumption to have made up to him." Ladies would not even venture on the privileged aristocratic walk, but when they approached it crossed over to the south side of the street. It was to be expected, therefore, that the citizens of Glasgow would resent the revolt of the American colonies. They sent a regiment, 1,000 strong, to aid the royal forces, and also placed at the king's disposal fourteen ships, mounted with from twelve to twenty-two guns. The war gave the death blow to the tobacco trade, so far as Glasgow was concerned; it broke her monopoly. Before the war tobacco was selling in Glasgow at threepence per pound, but the outbreak of active hostilities sent it up to sixpence. In 1861 the amount imported was 1,668,959lbs.; in 1871 it had gone up to 2,741,424lbs.; while in 1889 it stood at about 4,000,000lbs.

SUGAR MANUFACTURE.

THE manufacture of sugar was also pursued with success. The "Wester Sugar House," founded by four Glasgow merchants in 1667, was the first sugar factory in Scotland. It was but a small concern, for sugar was a scarce commodity then. Mc.Ure says of this company: "Having got a little apartment for boiling sugar, and a Dutchman as master boiler, the undertaking proved very effectual, and their endeavours were wonderfully successful." The "little apartment" gave place to a larger one, and the business continued to prosper. In 1669 the "Easter Sugar House" was opened, and others were talked of. It was not till after the Union that any marked progress was made. The trade was with the West Indies, and for a long time was prosecuted in a desultory manner—only an occasional ship being sent out with herrings and other goods, for which rum and sugar were brought home in return. In 1715, sugar refining was in a prosperous condition. The refiners enjoyed exemption from import dues, but the Crown about that time instituted proceedings against the Leith and Glasgow refiners for payment of bygones. The sum of £40,000 was found to be due, but as that demand was more than the trade could meet a compromise was effected, by which the manufacturers were exempted from payment of the £40,000 on condition of subjecting themselves to the operations of the excise. The other houses mentioned were the South sugarworks and the King Street sugarworks. The seat of the industry has been transferred to Greenock, sometimes called Sugaropolis. Glasgow is no longer a sugar making, but a sugar taking city. Of the 438,302 tons of refined sugar imported into the United Kingdom in 1889 fully one-third passed into consumption through importers in Glasgow.

BREWING.

Division of labour is a principal that asserts itself more and more as communities grow in size and importance. While Glasgow remained a village, it had been customary for each family to do its own brewing. With the extension of the town, brewing became an industry by itself. Statistics regarding the early trade are entirely wanting. In the letter of Guildry, 1606, mention is made of the corporation of maltmen. In 1727, one of the most disgraceful riots ever known in the city occurred in connection with the attempt of the Government to impose a tax of sixpence on every barrel of beer brewed in the country. The people would not have their beer taxed. An infuriated mob, with the cry "no malt tax," stormed the house of Campbell of Shawfield, the M.P. for the Glasgow Burghs, who was known to be favourable to a modified tax. The house was destroyed, and before peace was restored nine people were killed and seventeen wounded. In 1760, a John Struthers opened the first factory in Glasgow for the making of ale and porter, and about the same time a larger and more pretentious brewery was started in Anderston under the firm of Murdock, Warroch, and Co. The porter for home consumption and for exportation was poor in quality, extremely dark, and coarse in flavour. It was generally supposed to contain an infusion of liquorice, or, as it was more commonly called, "sugarallie crieshe," and, as a consequence, English porters were preferred instead. The Anderston firm, alive to the fact, engaged a brewer from London to teach the art of brewing on the London principle; and the secret once being revealed, Glasgow liquor improved in quality, and finding more favour with the public became an important industry.

MISCELLANEOUS.

The manufactures of Glasgow are many sided, and almost innumerable. Each period has had its outstanding industries, and these have all been touched upon. Besides these are others, which, though in themselves of secondary importance, form in the aggregate no inconsiderable item in the business of the city. A few of these deserve a passing note. In the second half of last century bottle-making, glass-making, and the manufacture of delph were started, and are still largely carried on. In 1674, a soap factory was established at the head of Candleriggs, and in Glasgow, it is not an unknown article yet. In 1786, Mr. Charles Macintosh—a name ever associated with waterproofs—introduced from Holland the manufacture of sugar of lead. He made several chemical discoveries, but will probably be best known for his method of rendering cloth impervious to water. His factory for the manufacture of waterproof goods was for some years situated in Glasgow, but ultimately removed to Manchester.

Mention has already been made of the important experiments of Charles Tennant, who succeeded in making chlorine available for bleaching purposes. The invention introduced a new era in bleaching. The works at St. Rollox are of a very extensive character, covering over 50 acres of ground, and producing soda ash, soda crystals, caustic soda, sulphuric and hydrochloric acids, bleaching powders, soaps, &c. Tennant's stalk is almost as famous as Glasgow itself. The discoveries of chemistry have been far beyond the stretch of the liveliest imagination, and it is almost impossible to keep abreast of the times, for even while these pages are being written some new discovery may be made which will work striking transformations in many departments of industry. The science of the future has made rapid progress in Glasgow, and from the chemical works, whose odious fumes charge the air of certain quarters, bichromate and prussiate of potash, alum, ammonia, and other substances are being sent over all the globe.

Glasgow has always been noted for her humanitarian spirit, and yet some of her merchants did not disdain to engage in the slave trade. Coloured servants, who were the property of their masters, were not uncommon in the city. It is recorded of a Mr. John More, manager of the Royal Bank about the beginning of the present century, that on "Saturdays and holidays a splendid equipage, with a black servant in a rumble, drove up to the bank to convey him to his rural home." Slaves were considered legitimate articles of speculation. One Andrew Houston, of Jordanhill, a man of considerable importance in his day, traded in them. He ultimately became bankrupt in consequence, it is said, "of his having, in partnership with some others, entered into an immense speculation in slaves when the total abolition of slavery was at first seriously agitated, and seemed likely to be immediately accomplished; but, as the measure was delayed, the loss occasioned by the fall in the price of negroes, by the expense of keeping them and by deaths amongst them, brought ruin to the speculators." May all likewise suffer who traffic in human flesh.

BANKING.

The prosperity of a community, like that of an individual, may be reckoned by the magnitude of its banking transactions. The Bank of Scotland was established by royal charter in 1695, and a year afterwards opened a branch in Glasgow, which, for want of patronage, was closed within the next twelve months. In 1731, the managers thought the growing trade and commerce of the town could support such an institution, and once more made an attempt to open a business connection in Glasgow, but without success. Traders were in the habit of finding bank accommodation elsewhere,

and did not see the necessity for the new company. The bankers of the time were the shopkeepers and merchants. This is seen from an advertisement in the *Edinburgh Evening Courant*, in July, 1730, where "James Blair, merchant, at the head of the Saltmarket," intimates that he is willing to negotiate with "all persons who have occasion to buy or to sell bills of exchange, or want money to borrow, or have money to lend on interest." In 1749, the first Glasgow bank was established, under the title of the "Ship Bank." It was a private bank, as all these establishments were up till 1830, but had at its head several of the wealthiest gentlemen in the city. As a curiosity, one of their notes is worth reproducing:—

£12 Scots. No. $\frac{111}{703}$.

I, James Simson, cashier, appointed by Colin Dunlop, Alexander Houston, and Company, bankers in Glasgow, pursuant to powers from them, promise to pay to John Brown, or the bearer, Twenty shillings sterling; the date, number, and creditor's name are inserted by me, and these presents signed by me, and the said Colin Dunlop, and Alexander Houston.

COLIN DUNLOP.
ALEXANDER HOUSTON. JAMES SIMSON.

The office of the Ship Bank was at first in the Bridgegate, the business centre of the town. The Glasgow Arms Bank was opened in 1753, and these two banks were sufficient for all purposes, till the Thistle Bank, the third of native growth, opened in 1761. The notes of the last-named were for 10s., £1, and £5, and were payable the first on demand, and the other two either on demand or six months' notice, if the company so desired it. A few years later some of the smaller traders, moved by the overweening pride and growing influence of the city magnates, resolved to begin a rival establishment, called the Merchants' Bank. The Merchants' House summoned a special meeting, and passed the following resolution, which appeared in the Edinburgh and Glasgow papers:—

That a Banking Company, lately entered into by a considerable number of merchants in Glasgow, and others in different places in this kingdom, having begun to issue notes under the firm of the "Merchants' Banking Company of Glasgow," signed by Robert Mc.Lintock and Andrew Carrick, as two of the partners, and by John Auld, as their cashier, it is resolved to advertise that the House had nothing to do with it.

The success of these firms led other banks in different parts to set up branches in the city. The Royal Bank opened an office in 1783, and the Old Paisley Bank followed the example in 1784, and the Paisley Union Bank came five years later. The most important of these banks was undoubtedly the old Ship Bank, whose name is intimately linked with that of "Auld Robin Carrick," as the folks of his generation called him. It was closed for an hour every day between one and two o'clock, and as a protection against burglars the youngest apprentice slept on

the premises. The watch on the Royal Bank was a couple of soldiers with fixed bayonets and loaded muskets, who occupied two large sentry boxes which stood on the footpath in front of the door at St. Andrew's Square. The year 1793 was a disastrous one for banking companies. No less than three of them—the Glasgow Arms Bank, the Merchants' Bank, and a smaller concern, called Thomson's Bank—failed in that year, though each was ultimately able to satisfy in full all claims. The last of the old private banks was the Glasgow Bank, opened under the management of James Dennistoun, of Golfhill, in May, 1809. The joint-stock companies produced great changes in banking circles. The Glasgow Union Bank, afterwards the Union Bank of Scotland, was founded on joint-stock principles in 1830; and the Western Bank followed in 1832, the Clydesdale in 1838, and the City of Glasgow in 1839. With the rapid development of trade and the extension of the city came an influx of branch banks from other towns, the rivalry between which has been highly advantageous to all. The year 1857 will be long remembered. In it the Western Bank failed, bringing ruin to thousands of homes. The authorised capital of the company was £1,500,000, in 30,000 shares of £50 each. It had 101 branches throughout the country. A commercial panic affected four firms who were known to be heavily indebted to the Western; a rush was made on the bank; deposits to the extent of £1,000,000 were withdrawn; the price of shares fell, and ugly rumours got into circulation. The utmost excitement prevailed, and the directors, having failed to get help, found it necessary to close the doors. The result can hardly be imagined. So threatening became the populace that the magistrates sent to Edinburgh for additional troops in case of violence, but happily these were not required. The company went into liquidation, and two calls amounting to £125 per share were made, which, with the assets, enabled the liquidators a few years after to pay off the total liabilities, amounting to £8,911,932. Another bank disaster, even exceeding in magnitude that of the Western, was the failure of the City of Glasgow Bank, in October, 1878. It had suspended payment for a few days at the time of the Western crisis. The difficulties, however, were only temporary, and it soon resumed again an apparently prosperous career. The first intimation the public had of anything wrong was an announcement in the morning papers that the bank had been compelled to stop payment. This fell on the people like a thunderbolt, and almost paralysed business. At the annual meeting, in May, a dividend of 12 per cent had been declared, and the report of the investigators in view of this fact caused the wildest excitement. The report stated that the total losses amounted to £6,190,983. 11s. 3d.; the amount of bullion in the coffers on September 28th would have only justified

an issue of notes to the extent of £366,464, whereas the notes actually in circulation amounted to £604,196; that the money lent upon credits was understated by £1,126,764; that the security for these credits was overstated by £926,764; that the reserve gold in the cash chest was represented as being £200,000 more than was really the case; and that the bad debts, amounting to £7,345,359, had been treated in the balance sheets as available assets. The directors and managers were apprehended, and, after a trial lasting over twelve days, the manager and one director were sentenced to eighteen months, and the other five directors to eight months' imprisonment. The affairs of the company were wound up in four years, after a payment of £13,644,856, which of necessity involved in ruin a large number of shareholders. Another bank, which might not unfitly be called the "people's bank," is the National Security Savings Bank of Glasgow. It commenced operations in July, 1836, and in November, 1840, had at the credit of 13,000 or 14,000 depositors the total sum of £154,690. 5s. 6d. At its last balance, in November, 1889, the total funds were found to be £5,189,230. 3s. 10d., and the number of depositors 151,434.

PRINTING AND NEWSPAPERS.

If the banking account shows the financial condition of the people, the printing and the newspaper trades reveal their mental and moral condition. Two great events took place in Glasgow in 1638. The one was the meeting of the General Assembly of the Church of Scotland, which refused to dissolve at the king's bidding, and proceeded, in face of his mandate, to abjure Episcopacy; the other was the removal from Edinburgh to Glasgow of George Anderson, printer. Both were destined to have a marvellous influence on succeeding generations. Anderson was settled in Glasgow by the Town Council, who, besides allowing him a yearly salary, made him a liberal allowance for "transporting of his gear to this burgh." Probably the first work ever printed in Glasgow was "The protestation of the Generall Assemblie of the church of Scotland, and of the noblemen, barons, gentlemen, burrowes, ministers, and commons; subscribers of the covenant, lately renewed, made in the high kirk, and at the mercate crosse of Glasgow, the 28 and 29 of November, 1638." It bore that it was "printed at Glasgow by George Anderson, in the yeare of grace 1638." Anderson died in 1648, and for eight years after there does not seem to have been a printer in the burgh. In 1656, in the interest of the common good, the Council once more sent to Edinburgh and induced Anderson's son, for a consideration of 100 merks (£5. 11s. 3d. stg.), to come to the city and set up business in his father's stead. Five years after he was appointed

king's printer, and returned to Edinburgh. Printing must have been a poor trade, and not a very lucrative one, for the next person—a Robert Sanders—the Town Council invited to become burgh printer was allowed an annual subsidy of £40 Scots (£3. 6s. 8d. stg.), in return for which he was to "print gratis anything short the Council should ask him to do." Sanders was much annoyed and hampered by the action of Anderson, who, seemingly bent on keeping the printing in his own hands, skilfully decoyed away the Glasgow men. Not to be beaten, however, Sanders imported both men and material from Holland, and after that seems to have succeeded fairly well. He died in 1696. Then for a while the art of printing was practically unknown in the metropolis of the West; and that owing chiefly to the exclusive nature of the grant to Anderson as the king's printer. In 1713 the University authorities submitted a proposal "for erecting a bookseller's shop and printing press within the University of Glasgow," alleging "that they were obliged to go to Edinburgh in order to get one sheet right printed." A divinity student, named Harvey, was appointed printer to the University, with certain privileges. Others followed, and in 1741 Robert Foulis began business. He was afterwards joined by his brother Andrew, and these two founded the "Foulis Press," the productions of which for beauty and correctness gained a world wide reputation, and are treasured by bibliomaniacs almost as carefully as Elzevirs can be. Robert had originally been a barber, but the desire for letters led to the abandonment of his profession. Having studied at Glasgow and Oxford, he, along with his brother, crossed to the Continent, from whence in a year or two he returned to his native city, where his refinement and intellectual attainments soon made him a general favourite. He established in the University an Academy of Painting and the kindred arts. It is said of the celebrated edition of Horace that the proof sheets were hung up in the college, and a reward offered for the discovery of an error, but none was discovered. It has since been observed that the edition "contains at least six typographical errors." The art has made great progress since then, and with stereotyping, engraving, bookbinding, &c., now gives employment to several thousand persons.

The first newspaper, that great engine of modern civilisation, to be established in the city was the *Glasgow Courant*. It appeared on November 14th, 1715, and bore that it was

Printed for R.T.; and sold at the Printing House in the Colledge and at the post-office, price three halfpence.—N.B. Regular customers to be charged only one penny.

It was published three times a week, consisted of twelve pages small quarto, and contained plenty of cuttings from London and

other newspapers, with a sprinkling of poetical effusions and scraps of local news. With the fourth number the name was changed to the *West Country Intelligencer*. It died in 1716; and for the next quarter of a century the citizens had to depend upon gossip for local news, and an occasional London or Edinburgh paper for information regarding the doings of the general world outside. In 1742 the *Glasgow Journal* was begun by Andrew Stalker, and the enterprise of that gentleman is shown by a letter which he published on the outbreak of the Rebellion in 1745. There he said that, considering the position of affairs, he found he could not with safety continue to please the generality of his readers, and he would, therefore, cease writing for the paper till peace was restored. The paper continued in existence for upwards of a hundred years. On October 14th, 1774, a second *Glasgow Courant* was published. Unlike its contemporary, the *Journal*, it was conducted with considerable enterprise, and some of its paragraphs had a flavour about them which even the new journalism cannot excel. One gentleman is said to have married a "beautiful young lady with a handsome fortune;" and another to have got "a young lady of great merit, and a fortune of £4,000." The next newspaper was the *Advertiser*, published n 1783; re-named the *Herald and Advertiser* in 1801, and changed to the *Herald* in 1804, when it fell into the hands of the genial Sam. Hunter. The *Courier* was a paper of note in its day, but, like others that followed in its wake, it has long since become a thing of the past. The *Mercury*, the *Commercial Advertiser*, the *Caledonia*, the *Western Star*, the *Free Press*, the *Liberator*, the *Sentinel*, the *Reformer's Gazette*, and others, have shared a similar fate. The *Glasgow Citizen* was started by Dr. (then Mr.) James Hedderwick in 1842, and combined the function of literary journal and newspaper. On April 14th, 1847, the first regular daily paper appeared in Scotland, with the title of the *North British Daily Mail*. The introduction of steam, the invention of telegraphy, the improvement in web printing machines, and the repeal of the newspaper stamp duty in 1855, have produced prodigious changes. On August 8th, 1864, the first halfpenny newspaper was published by Mr. Hedderwick, and called the *Evening Citizen*. That marked a new era in journalism. Others followed—the *Evening Star*, the *Evening News*, and the *Evening Times*—but the *Citizen* has never lost its hold upon the reading public. The *Glasgow News* was started in the Conservative interests in 1873, and after running a chequered course for a number of years ceased to have an existence. Of small journals devoted to particular industries or causes, Glasgow has quite a host. The *Bailie* and the *Chiel* are the comic papers. For enterprise and ability Glasgow journalists are second to none, and to these quiet but energetic gentlemen Glasgow owes much of her commercial success.

FREEDOM AND PROGRESS.

THE government of a city has an important influence on its industrial life, and nothing could exemplify that better than the history of Glasgow. At first the town was entirely under the control of the bishops, who, in accordance with the ideas of the middle ages, were not only spiritual but feudal lords of the community. Not only the lands and houses, but even the inhabitants themselves belonged to them; and all grants and privileges were given not to the people, but to the bishop holding office for the *burgenses et hommes sui*. The trade and commerce were therefore under the absolute care of the bishops, and it was to them and their efforts that Glasgow owed her earliest trading privileges. As the town grew in importance trade gilds were formed to look after the interests of the various industries, but even these could not be incorporated without the consent of the bishops, who ordained that all fees for the "upsett" of freemen, and all fines imposed by the gilds, should be given to the Church. Thus, in 1516, a charter to the "kirkmasters and the laife of the maisters of the skinner craft and farrier craft" is granted by the magistrates, with "the consent, approbatioune, and ratificatioune of aur maist reverend fadir in God James Archbishop in Glasgow, Chancellor of Scotland, and Commendatour of the Abbey of Kilwinning;" and it is stipulated "that na falss stuff be sauld to the kingis leidges under the paine of ane halfe pund candle of wax to the altar." These gilds continued to be important factors in the development of the municipal life, and contributed, by stringent laws, to keep up the quality of the Glasgow goods. At times their policy was arbitrary and shortsighted, but, as a whole, wise and beneficent. Powerful enough to oppose the Council, and sometimes successfully, they were not always wise or judicious in the objections they brought against individuals. To their lasting disgrace it has to be recorded they opposed the settlement of James Watt in Glasgow, and, but for the protection extended to him by the University, within whose walls he pursued his experiments, Glasgow would have been shorn of one of her greatest glories—the invention of the steam-engine.

The bishops never yielded their right to regulate the internal affairs of the town, but they allowed that right to "fall" into abeyance. There is an old charter granted by James III. in favour of John Laing, Bishop of Glasgow, afterwards Lord High Chancellor, in which full powers are given "to constitute and appoint provosts, bailies, sergeants, and other officers within the said city, for the management and government of the same, as often as to him shall be expedient; and to appoint and remove to and from these offices such persons as he shall think proper." These were the days when

democracy was unheard of, and when those holding high office could do very much as they thought best with public funds. Nor did the Reformation—when the power passed out of the hands of the spiritual into the hands of the temporal lords—make much change. The great commons of the city were broken up by the latter, and some of the lands now yielding fabulous rentals were disposed of to needy relatives for an old song. A fine example of old-fashioned ways is found in the rashness which led the Council, seized doubtlessly with the fever of the time, to risk £3,000 in the unfortunate Darien scheme, whose failure in 1700 crippled for one decade at least the enterprise of Glasgow. In 1690 the city and Town Council acquired "the power and privilege to choose their own magistrates and provosts as fully and freely as the city of Edinburgh or any other royal burgh." The powers exercised by the bishops seem to have been retained by the Council for the regulation of trade. There were many good points in the old municipal government, among which many will include these—

(1) That no unauthorised person could practice a handicraft; (2) that na falss stuff should be sauld; and (3) that the Council had the power of fixing the price of certain articles of daily consumption.

The industrial revolution effected by the introduction of steam weakened the hands of the Council; and the Reform Bill of 1832 deprived that body and the trade gilds of much of their ancient power.

These were only the harbingers of greater social changes. In Glasgow of old, class distinctions were very strong. There were the great tobacco and, later, cotton lords, the wealthy merchants, and the master tradesmen and their dependents. Each of these three classes had its own quarter of the city, its own clubs, and its own traditions. Intercourse between them was hardly known. But the growing spirit of democracy, fostered by the massing of the people in factories and workshops, and the uprising of a strong middle class, chiefly as the result of the new industries, broke down the old barriers, and men of all conditions began to mingle more freely. As a consequence, the plain, simple life of the inhabitants was transformed into a more polished but less natural existence. Their children desired bigger houses, greater grandeur, and more extravagance; and the tendency has grown till one is now tempted to ask where are the legitimate successors of the plain, old-fashioned gentry who, by their personal labours and recognised integrity, built up the city's greatness? Joint-stock and limited liability companies can never make up for these matchless old citizens.

The progress and extension of the city within the last century has been marvellous. This is seen by a glance at the

CONTRAST BETWEEN THE PAST AND THE PRESENT.

In 1791, the population was 66,578. In June last it was 567,657 (exclusive of suburban burghs), and the number of inhabited houses was estimated at 118,272.

In 1803, the rental of the city was estimated at £81,484; now it stands at £3,077,337.

At the beginning of the century the Clyde was a shallow stream, with only a depth of 3ft. 3in. of water in the Broomielaw at high tide. Now ships drawing 24ft. can enter the harbour.

In 1790, the revenue of the Clyde Trust was £2,239. 0s. 4d.; for 1889–90, it was £356,202. 11s. 3d.

Clyde shipbuilding and shipping were practically unknown. In 1889, the tonnage of Clyde-built vessels amounted to 335,201.

In 1780 there were no lamps in the city, to-day there are 9,000.

Towards the end of the century two men sufficed for the cleaning of the streets and removing rubbish. To-day there is an army of scavengers, costing in wages alone £46,127 per annum.

Two men did the paving and causeway work of the town for the sum of £66 per annum. In 1889–90, the relaying of streets alone cost £15,359. 10s. 11d.

The police establishment in 1788 cost £135, and in 1889–90, £98,969. 8s. 1d.

The water supply then was from wells in the streets and closes, with a small quantity carted through the streets in barrels, and sold at a halfpenny per "stoup." Now 40,000,000 gallons are delivered daily in the city at something like a penny per 400 gallons.

The contrast might be carried out indefinitely—but enough. Her's is now the proud distinction of the "second city of the empire;" and the prayer of her sons is, as of her inhabitants of old, still

LET GLASGOW FLOURISH.

THE SOURCES OF OUR MEAT SUPPLY.

BY JAMES LONG,

LATE PROFESSOR OF DAIRY FARMING AT THE ROYAL AGRICULTURAL COLLEGE.

THERE are few subjects connected with agriculture which have created greater interest than the production and distribution of meat. Some of our most able authorities have devoted both time and ability to its study and examination, and if they have not been able to assist the producers and consumers in these islands directly, they have been the means of adding very considerably to their knowledge, and by that means indirectly conveying assistance of a more or less precise nature. In this article it is proposed to show as fully as possible what meat we import, in what form and from whence we import it, what we produce, and what chiefly affects the cost of production. Each meat exporting country is separately examined; but as regards the United States, considering the immensity of her trade and her overpowering influence upon the meat business of the world, we have at considerable length investigated each branch of her live and dead meat industry. Lastly, we have worked out upon a recognised basis the quantity of meat of home production consumed in the United Kingdom, together with the quantity of imported meat and the total supply, adding something, we trust, to the data already existing in connection with this very important subject. Taking the chief exporting countries in the order of their importance, we first deal with

THE UNITED STATES.

No reference to the meat trade of the United Kingdom would be complete which did not place the leviathan trade with the United States in its proper light. Generally speaking—the exact figures will be found elsewhere—the American breeder sends us three-fourths of the bacon and hams we import, almost all the salt and fresh beef—for of the 1,647,000 cwt. received in 1889 she sent us 1,526,000 cwt.—nearly three-fourths of the salt pork, and four-sevenths of the unenumerated preserved meats. In other words, taking the figures of 1888–9, the imports of dead meat from America amounted to 5,500,000 cwt. out of 9,500,000 cwt., while the live stock imported was considerably more than one-half the value of the whole, £5,833,000 out of a total of £10,358,000. There is, however, a serious side to the American imports. It has been shown that we

import live cattle to a large extent. Unfortunately this trade is attended with very severe losses, arising from the injuries and deaths which occur during the voyages. In the year 1886 no less than 5,907 animals were thrown overboard, 281 were dead when landed, and 279 were slaughtered in consequence of the severity of their injuries.

The exports of British stock to the United States decreased gradually from £30,000 in value in 1885 to £13,000 in 1889.

IMPORTS OF LIVE STOCK FROM THE UNITED STATES.

YEAR.	Oxen and Bulls.		Sheep and Lambs.		Swine.	
	No.	£	No.	£	No.	£
1884.....	139,213	3,316,567	30,317	73,237	17	11
1885.....	137,319	3,102,178	11,829	29,801	57	144
1886.....	113,756	2,270,831	5,551	10,702	....	....
1887.....	94,642	1,849,307	1,027	2,040	....	....
1888.....	142,865	2,841,291	1,203	1,956	....	....
1889.....	294,124	5,793,296	18,690	36,288	....	....

IMPORTS OF DEAD MEAT FROM THE UNITED STATES.

YEAR.	Bacon and Hams.		Beef—Fresh and Salted.		Pork—Salted.	
	Cwt.	£	Cwt.	£	Cwt.	£
1884.....	2,502,566	6,077,922	1,016,735	2,613,123	180,117	307,717
1885.....	3,247,793	6,478,362	1,086,174	2,661,300	223,042	333,695
1886.....	3,430,087	6,314,321	947,161	2,073,751	212,907	295,502
1887.....	3,023,301	6,339,238	846,049	1,762,026	191,700	274,698
1888.....	2,523,140	5,576,407	998,208	2,138,859	149,801	237,591
1889.....	3,429,733	7,046,436	1,527,424	3,173,928	192,021	285,261

IMPORTS OF DEAD MEAT FROM THE UNITED STATES.—*Continued.*

YEAR.	Mutton.		Meat unenumerated, Salt or Fresh.		Preserved otherwise than by Salting.	
	Cwt.	£	Cwt.	£	Cwt.	£
1884.....	32,229	92,802	959	1,830	259,853	714,947
1885.....	33,244	92,155	1,456	2,168	261,191	692,372
1886.....	6,369	15,498	875	1,647	293,625	664,269
1887.....	2,289	3,600	2,451	5,322	228,823	533,659
1888.....	7,157	10,027	3,378	6,528	263,218	630,113
1889.....	1,609	3,093	13,720	28,175	411,077	931,239

	No.		£
Cows (1888).....	630	....	12,415

ADVOCATES OF THE AMERICAN TRADE.

THE view of the American meat trade, as expressed by Mr. Morton Frewin in the *Pall Mall Gazette*, and by other gentlemen interested in the subject, from the Transatlantic standpoint, is worthy both of examination and reply, as showing upon what specious bases their arguments are founded, and how they are answered by those who are responsible for and interested in the production of meat in this country. Mr. Frewin says that the difference in the values of store cattle in America and in Great Britain is the consequence of an Act of Parliament, which enabled the American farmers to undersell the British farmers, who had cut themselves off by legislation from the one chief source of store supply. He urges that this is a most distasteful argument to our farmers, who are deprived of a large supply of raw material, especially as it involves the admission that their Parliamentary friends have erred from excess of zeal. Since the publication of Mr. Frewin's first letters he claims that the position has intensified, American stores declining in price, so that, while the American exporter has been profiting by his trade with the English customer, the breeder in this country has been living upon the grazier, and at the same time that stores have fallen in America they have risen in this country. Mr. Frewin illustrates his argument by taking two farmers who are to-day feeding for the London market, the one a resident in Illinois, the other in Norfolk or Northumberland. The Illinois farmer buys his stores in Chicago at 1s. 6d. per stone, live weight (the actual price current is referred to elsewhere), the latter is buying in Newcastle at 4s. 6d. As, however, the cost of carriage from Chicago to Newcastle is placed at 1s. per stone, the northern farmer, if in a position to import from America, would buy his stores at 2s. 6d. per stone, or 2s. under the normal figure. Again, he argues that if the Contagious Diseases Act did not apply to Scotland, but to England alone, the Scotch farmer would buy his stores at 2s. 6d., so that the English markets would be swamped with cheap Scotch beef. The same argument is made to apply to the American and the Norfolk farmer, but when Mr. Frewin suggests, in his illustration of American cotton, that if the supply were summarily stopped the price would rise here and fall in the States, and that the Manchester trade would ultimately die, he forgets that Manchester is the great cotton workshop of the world, not producing for home consumption alone, but acting, as it were, as a medium between the American producer and the foreign consumer.

The introduction of American dead meat, although largely affecting the agricultural interest in this country, has its compensating side, for it provides cheap food for the public; but the introduction of

American live cattle has an additionally unfortunate influence, as it endangers not only the health but the actual existence of our valuable herds, and it is for this reason that the trade has been checked, and not because of the dangerous influence, serious as that is, upon the cattle-breeding system of this country. When speaking of cattle disease, Mr. Frewin argues that there is more pleuro-pneumonia in the county of Dublin than in the entire United States; and that, on account of the exclusion of American cattle, Great Britain is practically importing disease from districts where they are far more expensive, and where epidemics are far more frequent. He adduces figures—which in a more extended sense can be referred to in the tables we have compiled—showing that the ratio of cattle to population has risen considerably during the last decade; and he suggests that these figures are either encouraging or alarming to British farmers just as the Transatlantic trade is treated. The increase, he believes, promises either cheap store cattle for our breeders and graziers, or an increasing mass of cheap meat fattened in the States and leaving its fertilizers on a foreign soil.

THE DANGERS OF DISEASE.

THE arguments of Mr. Frewin, and those who are with him, have failed to attract the attention or support of any large section of the community. Their dazzling prognostications of cheaper food for the public and cheaper cattle for the farmer are not appreciated, for both sections are too well aware of the fact that whether meat is imported in live or dead condition it passes through too considerable a filter to leave much behind it, and that it would be only a matter of time to bring such enhanced advantages as might possibly accrue at first down to the present level, when the farmers, while compelled to produce at a much lower price, would still have to meet the same outgoings or expenses as they have to meet at the present moment. British farmers know too well that for many years past their cattle have been destroyed by the importation of disease, and that in consequence, at all events to a large extent, we have been compelled to spend money in the purchase of foreign meat which would have been much better spent at home. Some years ago the Government scheduled those countries which were not free from disease; and, with the exception of a few animals imported under the order of the Privy Council, no live cattle have been sent to us from them since the interdict was issued. America is very anxious to continue to supply us with live cattle, but our Government is unwilling to permit her to do so as long as cattle disease exists in the States. The United States Government has therefore sent over three experts, who are described as "chosen veterans who led the

American forces in the work of exterminating this plague from the States." These gentlemen are required to inspect the cattle which we import from abroad, and an American writer has admitted that, if they find a genuine case of disease among American cattle, the regulations which have been recently enforced under the American inspection law would enable the authorities to trace the diseased animal to the locality where it was reared. The same writer admits that disease is still in the States, for he speaks of a recently infected locality as being isolated, entirely out of the line of the beef cattle traffic, and under strict quarantine. It is not sufficient for the authorities of this country, and certainly not for the farmers, that cattle should come from no country where disease exists. The Americans cannot complain that they have imported disease, for they insist upon a quarantine of ninety days, which is much more severe than that necessary in this country when the importations of cattle for breeding purposes is permitted from scheduled countries. It is a fact too well known that one diseased animal may be the means of spreading the infection throughout the entire country, for one diseased beast in which the disease is undetected is as dangerous (in disseminating pleuro-pneumonia) as a match applied to a hay-rick, and yet the Americans themselves admit that forty-nine animals were condemned as infected with this very disease during the last year. Mr. Duckham, in very forcible terms, has shown that one diseased animal brought us the disease fifty years ago, since which time this country has not been free from its scourge; that one diseased animal took it to the United States, and that one beast was the means of conveying it to Australia. In each instance the loss has been enormous and the work of extermination almost hopeless. Herds have been destroyed, farmers have been ruined, and the experts of the world have been consulted almost in vain, for they seem to be powerless either to cure the disease or to exterminate it, even by the wholesale slaughter of every animal in a herd which has been in contact with a diseased beast. Is it, then, any wonder that the action which this country has taken, in refusing to receive cattle from those countries where disease exists, should be maintained by all classes of our people? According to the report issued by the Board of Agriculture, there were 740 cargoes of cattle received from the United States in 1889. Of these, 18 cargoes, consisting of 8,102 cattle, had 47 head which were found to be affected with pleuro-pneumonia—namely, 29 upon a first and 18 upon a second inspection. In addition, there were three cargoes, consisting of 2,198 cattle and 1,172 sheep, among which there were 90 affected with sheep scab. These cargoes were landed at Liverpool and London, from Baltimore, Boston, Norfolk, and New York. Here, then, let us remark, we have a most important instance of

the lurking danger of the disease, for in the first inspection by the experts 18 animals were passed as healthy which upon a second inspection were found to be diseased. So little is known of the disease at present that the most skilled veterinarians are often unable to detect it; hence it is that infected animals are distributed throughout the country, conveying infection to the herds among which they are placed, and thus accounting for the rapidity of the outbreaks which have been so expensive to the State. We do not suggest that in these cases cattle were so distributed, for the regulations do not admit of the removal of stock so imported; but the fact remains that if store cattle were allowed to be received for our graziers to prepare for the butcher, or our breeders to use in their breeding herds, it is certain that pleuro-pneumonia would be distributed far and wide, as it assuredly would have been had the 8,000 odd cattle above referred to been sold for such purposes, after having been in connection with the forty-seven animals which were found to be diseased. We have also seen that these animals were shipped from four ports which extend an enormous distance along the American seaboard. There is one other feature concerning this question which deserves a word of remark. If so many diseased animals were discovered among 8,000 cattle after a second inspection, it is fair to assume that numbers of others with which they had been in contact during the voyage were affected by the disease in an incipient if undetected state. These animals were slaughtered for sale, and they were in the ordinary course consumed by the people. How many such animals must have been consumed out of the half-million cattle which were imported altogether the reader must judge for himself. We are content to suggest not only that the meat provided by an animal suffering from pleuro-pneumonia is unhealthy, and consequently unfit for food, but that the purchasers would not on any condition consume it if they were made aware of the fact.

Since the above was written we have observed that, according to an official report prepared at Washington, there were in the United States *682 herds affected with pleuro-pneumonia in 1888, and 222 in 1889.* In the same years the *post mortems numbered 42,040 and 54,520 respectively,* whereas the *cases affected numbered 3,578 in 1888, and 1,294 in 1889;* and this all occurred in four States.

THE NEW BILL.

During the past autumn, a Bill, entitled "An Act providing for an inspection of meats for exportation, prohibiting the importation of adulterated articles of food or drink, and authorising the President to make proclamation in certain cases," and for other purposes, was

passed by the American Congress. Let us see how this Act affects the meat trade of this country. It has been already declared by an American writer that the retaliatory feature in this Act was aimed rather at Germany and France than at Great Britain, on account of their prohibition of American pork. It is argued that should those countries choose to place a customs duty on the pork of all other countries, in order to protect their own produce, there would be no just cause of complaint; and he similarly argues that if American cattle are not free from disease, Americans have not the right to claim anything beyond what is now granted, but that if they are free from disease they are entitled to admission into this country just as are those which are received from Canada and other non-scheduled countries. We will describe the gist of the Act we have referred to in as few words as possible, so far as it bears upon the question with which we are dealing. The Secretary of Agriculture may cause inspection of salt pork and bacon for exportation in order to determine whether it is fit for human food. Section 4 provides that when the President is of opinion that food is being imported from a foreign country which is dangerous to health he may, by his proclamation, suspend such importation. Section 5 is of the greatest importance. It provides that when the President is satisfied that unjust discrimination is made by any foreign state against the importation of any product of the United States, he may direct *that the products of such foreign state shall be excluded from importation to the United States.* In section 6 the importation of neat cattle, sheep, and other ruminants, and swine which are diseased or infected with disease, or which have been exposed to such infection within sixty days next to their exportation, is prohibited. Sections 7 and 8 provide for quarantine of imported animals, while by section 9 the President is given power to suspend the importation of animals of any class. It will be noticed that it is within the power of the President of the United States to "retaliate," as it has been termed; and should he make up his mind that the prohibition of American live cattle from importation into this country is unfair, he has the power to prohibit the importation of British goods into America, and therefore to very materially interfere with the welfare and prosperity of large numbers of the British public. It is for this reason that the Bill is looked upon as a menace, and as an effort to enforce a trade which is so dangerous to British agriculture, and which offers so little that is worthy of consideration to the public in general. That there is so great a necessity for continued exports on the part of the Americans is not altogether believed to be correct. The *Live Stock Gazette* of San Francisco, in pointing out that the value of the exports of cattle in the year closing January 30th, 1890, reached 31,500,000 dollars, against 16,500,000

dollars in the previous year, and that the exports of sheep reached only 243,000 dollars, against 366,000 dollars in the previous year, says that with a population growing at the rate of about 1,800,000 persons a year, even if the exports of beef animals did not further increase, there must every year be a larger demand for live stock. Yet, from the breaking up of so many large ranches, the spaying of heifers, free slaughter of cows and calves, and the heavy losses of stock during last winter, the number of animals intended for beef, so far from increasing at the same ratio as population, is actually decreasing. The pinch is not felt yet; but it must come within the year, and grow in intensity. Mr. W. E. Bear, the agricultural authority of the *Standard*, in an able paper upon "Cattle disease and the food supply," written some years ago, referred to Gamgee's statement that free trade in cattle disease during 1840 and 1877 sent up the prices of meat, but that since the Cattle Disease Act of 1878 was passed the country was kept free from rinderpest, and nearly free from pleuro-pneumonia. He refers to the report of the Royal Commission on Agricultural Depression, in which pleuro-pneumonia and foot-and-mouth disease alike were found to be of foreign origin. Of the tenth outbreak of the latter disease in October, 1880, it was remarked by Professor Brown that there could be no doubt that it was re-introduced by a cargo of animals from France. And yet this disease was, so far as it is known, non-existent in the earlier months of the same year. Speaking of the diseases of cattle, Mr. Bear quotes Gamgee again as using the following words:—

> If the opinion of the most accurate observers and collectors of evidence be taken, the estimate of our actual money loss at £10,000,000 per annum, apart from loss of fodder, rent, interest on cattle, &c., will be considered most reasonable.

Just fancy in thirty years, not to include the first four years of disease and destruction, an actual wilful waste of £300,000,000 sterling. From cattle returns made for the county of Hereford, the actual loss by foot-and-mouth disease alone in Great Britain and Ireland during 1872 was stated at £19,510,707, as against £4,606,582, the total value of imported live stock for the same period. Mr. Bear stated he was in favour of the total prohibition of all live animals as the only perfectly safe plan, and the only plan which would develop the dead meat traffic to the utmost. He believes that foreign dealers will not apply their energies to the development of this trade so long as there is a hope of the resumption of the live cattle traffic before them.

THE REPORT OF THE UNITED STATES STATISTICIAN.

Mr. Dodge, the statistician of the United States Department of Agriculture, says, in his last report, that the production of meat is increased by forcing to medium weights at an earlier age, a statement

which we in England should express in two words—EARLY MATURITY, thus making the number of beeves larger in proportion to the numbers of animals counted in an annual enumeration. The difference between the price paid to farmers and the cost of meat to consumers is enormous, much to the benefit of the middleman while injuring the producer. This statement applies equally to Great Britain, but her large farmers have their remedy in the weigh-bridge, which has been established throughout the country by the authorities, and which it is in the power of the sellers of stock to utilise if they choose to combine for the purpose. It has been shown repeatedly by Sir John Lawes, Mr. Westley Richards, and many other gentlemen in England, and by Mr. Mc.Jannet in Scotland, that the weigh-bridge is almost entirely in favour of the farmer or grazier; but the prejudice is so great on the part of the dealer and the butcher that it is practically boycotted in the majority of our markets, and consequently not used at all. Mr. Dodge furnishes a vast amount of information with regard to the cattle, sheep, and swine of America, the surplus of which is available for the supply of this country; and from this information, supplied in his report to the American Government, is extracted so much as bears upon the subject of the present condition of American meat production in its relation to this country. Cows increase to a large extent, but the increase is unequal, the development being in proportion to that of dairying in particular States of the Union. Although milking cows have a more direct connection with dairy produce than with meat, we cannot lose sight of the fact that the increase in the size and quality of American dairy cows tends very largely to the increase of the meat supply of that country. In the New England States in particular the manufacture of dairy products is increasing, the largest number of cows being kept in the States of New York, Iowa, Illinois, Pennsylvania, Ohio, and Missouri; and there are Southern States which have commenced the dairy business in earnest, where cattle will be bred in much larger numbers than hitherto. In ten years the increase has been 40 per cent in cattle other than milch cows, and 33 per cent in cattle of all kinds. They mature earlier, and American farmers are not able to make beef at a profit without steady flesh-making in winter as well as in summer. This accounts for a steady increase in one direction, but it appears that the losses upon the ranges are uncertain; they are, in fact, in accordance with the severity of the winter. Mr. Dodge remarks that the difference between a loss of 5 per cent and 25 per cent is a demoralising element in stock estimates as well as in stock profits. As regards sheep, the numbers decline annually under the operations of the tariff reduction of 1883, the falling off between 1884 and 1889 being more than 8,000,000, and it was midway between these

two periods that the lowest price was reached. In 1887, the production in numbers would have been arrested but for the continued threat of the free admission of the wools of the world. The price of American wools increased, and the market value of sheep was strengthened, but in face of the uncertain future some breeders reduced their flocks, and others gave them up altogether. The 1890 estimates, however, show an increase in number as they do in price, in spite of the fact that the values of all other farmstock are declining. This is declared to be owing to the wool-growing interest, which at the time the report was prepared was the only animal interest in the States liable to foreign competition. Swine continue to increase in proportion to the increase in the population, but the increase is greater in the south than in the west. The following figures show the number of head of meat-producing stock in the past two years :—

LIVE STOCK IN THE UNITED STATES.

Stock.	1889.	1890.	Increase.
Milch Cows	15,298,625	15,952,883	654,258
Oxen and other Cattle	35,032,417	36,849,024	1,816,607
Sheep	42,599,079	44,336,072	1,736,993
Swine	50,301,592	51,602,780	1,301,188

With regard to the values, there has been a serious decrease upon all kinds of stock but sheep. The average values per head, according to the last estimates, were as follows :—Cows, £4. 8s. 6d.; cattle of other kinds, £3. 0s. 9d.; sheep, 9s.; swine, 18s. 6d. Cows, however, show a decline upon the year of 7s. per head, other cattle of 7s. 2d., and swine of 4s. 3d. There is an increase in the value of sheep amounting to about 7d. per head. Although cattle have increased by nearly 2,500,000, they have decreased in value by nearly £10,000,000. This is an enormous difference, and shows how serious is the falling off in the total cash value of the stock upon American farms. If, however, we compare the present figures with those of 1884, when the average price of cattle reached the highest figure which it has shown for a long period, we shall see still more clearly how great is the reduction. In that year the value of American cattle was £221,000,000, estimating the dollar at 4s., while according to the last return it was only £182,750,000, and yet between the two periods the increase in the number of cattle amounts to 10,000,000. As regards sheep, the increased value amounted to about £2,000,000, while the value of swine has fallen to the extent of more than £9,000,000. In spite of a considerable increase in the numbers, it cannot for one moment be suggested that the value of similar stock in this country has fallen at all in the period to which reference is now being made. Cows and home-bred stock of all kinds are especially firm in value. Sheep during the

autumn were exceptionally high in price, and swine, if anything, pay the breeder as well as they have done for years. This fact may be more clearly understood when we remark that some of the curers have voluntarily offered increased rates for the class of meat which suits their particular line of business. There is, therefore, every inducement on the part of the American breeder, grazier, or exporter to send to this country; but he has been checked in the middle of a somewhat chequered career by the act of our Government in their endeavour to protect the herds of Great Britain from cattle disease, much to the annoyance of the interested portion of the inhabitants of the great Republic. There is no check, however, upon the exportation of dead meat, and now that its transport in cold chambers is accomplished with such ease and simplicity there is no reason why the American exporter should refrain from following in the footsteps of the exporters in Southern America, at the antipodes, and in other parts of the world. The following figures show the values of American stock in the past two years, together with the increase or decrease which has taken place; while in continuation is a table showing the average price per head of each animal, together with the increase or decrease in each.

TOTAL VALUES OF STOCK.—Thousands ("000") omitted.

	1889. $	1890. $	Increase or Decrease. $
Cows	366,226	353,152	−13,074
Oxen and other Cattle	597,236	560,625	−36,611
Sheep	90,640	100,659	+10,019
Pigs	291,307	243,418	−47,888

AVERAGE VALUE OF STOCK PER HEAD.

Stock.	1889. $	1890. $	Increase or Decrease. $
Milch Cows	23·94	22·14	−1·80
Oxen and other Cattle	17·05	15·21	−1·84
Sheep	2·13	2·27	+0·14
Swine	5·79	4·72	−1·07

Closely allied to the great subject of American exportation of meat to this country is that of transport. While the producers of the Eastern States are producing little if any more than will satisfy their own requirements, the farmers and graziers of the Western States are pushing still further west, and consequently from the Atlantic seaboard. This naturally has an influence upon the cost of transport, and so long as the present restrictions are maintained it is an influence that cannot be lightly estimated. Let us first see how many cattle there are, together with sheep and swine, in the different States, as well as the average price per head in each :—

NUMBER AND PRICE OF CATTLE PER HEAD IN EACH STATE, JANUARY, 1890.

STATES AND TERRITORIES.	MILCH COWS.		OXEN AND OTHER CATTLE.	
	Number.	Average Price per Head.	Number.	Average Price per Head.
		$		$
Maine	175,949	25·00	157,386	23·76
New Hampshire	103,011	27·63	116,169	23·87
Vermont	234,642	23·75	169,053	22·68
Massachussets	174,729	32·50	98,774	25·24
Rhode Island	24,041	31·00	12,194	27·25
Connecticut	134,897	31·08	102,143	27·20
New York	1,552,373	28·11	783,634	28·12
New Jersey	183,493	34·47	67,856	28·92
Pennsylvania	938,665	28·06	852,267	23·67
Delaware	29,543	27·50	26,866	24·78
Maryland	141,826	24·36	127,335	18·53
Virginia	272,036	19·28	419,523	15·66
North Carolina	272,155	16·04	398,414	10·47
South Carolina	156,575	21·40	210,396	13·15
Georgia	354,618	17·24	580,816	11·03
Florida	54,951	16·40	565,201	8·88
Alabama	311,805	15·80	454,042	8·94
Mississippi	309,234	15·38	441,862	9·34
Louisiana	177,613	16·32	295,731	9·76
Texas	843,342	14·15	7,167,853	8·83
Arkansas	329,121	13·62	587,212	8·64
Tennessee	377,740	16·98	484,578	11·68
West Virginia	179,939	21·52	286,538	18·00
Kentucky	317,093	21·69	523,728	17·69
Ohio	791,316	24·80	986,601	22·62
Michigan	454,926	26·24	547,716	21·38
Indiana	602,354	21·48	957,843	18·82
Illinois	1,072,473	22·62	1,713,966	18·71
Wisconsin	674,588	24·29	805,170	17·10
Minnesota	492,117	20·79	617,256	16 49
Iowa	1,331,888	19·79	2,577,161	18·03
Missouri	774,122	18·53	1,515,935	15·98
Kansas	750,815	18·69	1,829,422	16·71
Nebraska	420,069	20·15	1,306,372	17·03
California	268,628	27·75	697,805	16·80
Oregon	88,730	27·31	762,728	17·15
Nevada	18,399	30·00	373,527	14·53
Colorado	65,563	30·40	1,048,933	16·77
Arizona	16,790	20·00	604,170	15·00
Dakota	248,619	19·32	822,017	15·79
Idaho	31,750	30·00	374,247	16·50
Montana	33,015	29·75	981,786	17·24
New Mexico	20,375	21·25	1,383,357	11·25
Utah	52,910	22·10	426,170	14·08
Washington	83,641	35·89	369,381	23·51
Wyoming	10,404	32·25	1,217,890	14·98
Total	15,952,883	22·14	36,849,024	15·21

NUMBER AND PRICE PER HEAD OF SHEEP AND SWINE IN THE UNITED STATES, JANUARY, 1890.

STATES AND TERRITORIES.	SHEEP.		SWINE.	
	Number.	Average Price per Head.	Number.	Average Price per Head.
		$		$
Maine	542,248	2·94	79,043	8·41
New Hampshire	192,824	2·91	52,713	9·19
Vermont	362,112	2·96	77,888	8·60
Massachussets	56,530	3·38	68,580	9·61
Rhode Island	20,231	3·56	13,796	9·00
Connecticut	46,759	3·68	55,598	9·16
New York	1,548,426	3·54	686,321	7·27
New Jersey	103,170	4·04	204,669	8·15
Pennsylvania	945,002	3·36	1,193,415	7·22
Delaware	22,294	3·22	51,185	5·80
Maryland	153,763	3·42	343,079	5·49
Virginia	444,563	2·59	1,009,659	3·60
North Carolina	414,819	1·51	1,291,893	3·38
South Carolina	102,031	1·86	670,652	3·95
Georgia	411,846	1·55	1,627,008	3·31
Florida	110,351	1·99	358,021	2·42
Alabama	286,238	1·44	1,530,001	3·03
Mississippi	240,148	1·50	1,443,813	2·71
Louisiana	115,082	1·56	706,947	3·00
Texas	4,752,640	1·52	2,321,246	3·48
Arkansas	269,484	1·49	1,663,275	2·46
Tennessee	511,118	1·90	2,242,215	3·54
West Virginia	508,654	2·46	486,226	4·10
Kentucky	805,978	2·73	2,255,102	4·19
Ohio	3,943,589	3·02	2,611,014	5·22
Michigan	2,240,841	3·06	978,755	5·30
Indiana	1,278,000	3·07	2,845,302	5·42
Illinois	688,387	3·04	5,433,250	5·62
Wisconsin	809,009	2·72	1,087,902	5·65
Minnesota	327,375	2·44	527,526	5·40
Iowa	475,816	2·80	5,805,000	5·94
Missouri	1,198,200	2·09	5,096,000	3·64
Kansas	438,313	1·99	2,734,195	5·58
Nebraska	239,400	2·10	2,309,779	5·62
California	4,035,120	2·08	647,000	4·91
Oregon	2,929,830	1·92	270,164	4·27
Nevada	700,986	1·89	19,232	5·30
Colorado	1,783,891	2·12	29,508	6·13
Arizona	698,404	1·65	20,140	4·50
Dakota	266,329	2·64	476,569	5·01
Idaho	487,357	2·20	31,000	5·00
Montana	1,989,845	2·25	29,254	6·80
New Mexico	3,092,736	1·25	22,593	5·00
Utah	2,055,900	2·08	47,641	6·86
Washington	673,060	2·30	143,411	5·48
Wyoming	1,017,373	2·21	5,200	6·62
Total	44,336,072	2·27	51,602,780	4·72

Months.	Cattle. Car Load.					Sheep. Car Load.					Swine. Car Load.					Lard and Pork. Car Load.					Dressed Beef. Car Load.				
	1885.	1886.	1887.	1888.	1889.	1885.	1886.	1887.	1888.	1889.	1885.	1886.	1887.	1888.	1889.	1885.	1886.	1887.	1888.	1889.	1885.	1886.	1887.	1888.	1889.
	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.	lts.
January	40	25	35	35	22½	50	25	45	40	30	30	30	35	30	30	30	30	35	33	30	70	43½	65	65	50
February	40	25	35	35	22½	50	25	45	40	30	30	30	35	30	30	30	30	35	33	30	70	43½	65	65	50
March	40	35	35	35	22½	50	45	45	40	30	30	30	35	30	30	30	30	35	33	30	70	65	65	65	50
April	40	35	35	35	22½	50	45	45	40	30	25	30	35	30	30	25	30	35	30	30	70	65	65	65	50
May	40	35	35	35	26	50	45	40	40	30	25	30	35	30	30	25	30	30	30	30	70	65	65	65	50
June	30	35	35	25	26	40	45	40	25	30	25	30	35	30	30	25	30	30	30	30	70	65	65	65	45
July	25	35	35	16½	26	40	45	40	25	30	20	30	30	30	30	25	30	30	30	30	43½	65	65	26½-40	45
August	25	35	35	5½	26	40	45	40	25	30	25	30	30	18	30	25	30	30	18	30	43½	65	65	7	45
September	25	35	35	10	26	40	45	40	25	30	25	30	30	18	30	25	30	30	18	30	43½	65	65	25	45
October	25	35	35	15	26	40	45	40	25	30	25	30	30	18	30	25	30	30	18	30	43½	65	65	35	45
November	25	35	35	15	26	40	45	40	25	30	25	30	30	30	30	25	30	30	30	30	43½	65	65	35	45
December	25	35	16½	15	26	40	45	19	25	30	30	30	30	25	30	30	30	30	25	30	43½	65	31	35	45

COST OF TRANSPORT.

THE cost of the transport of agricultural produce was organised by a requirement of Congress in the year 1882, and from time to time the American Department of Agriculture is furnished with data showing the fluctuations which occur. There has been considerable uniformity throughout the year in the returns from the different trunk lines, Chicago to New York and points taking New York rates. Sheep and swine, lard and pork were reported at 1s. 3d. per 100lbs., in car-load lots, throughout the year. During the first three months cattle were reported at 11d., while during the remainder of the year the amount reached 1s. 1d. Beef was shipped at 2s. 1d. during the first half, and at 1s. 10½d. during the second half of the year. The figures on page 393 show the fluctuations from month to month of the rates upon live and dead meat between the years 1885 and 1889.

It will be noticed that there has been a considerable reduction in the cost of transport of cattle, sheep, and beef, and this appears to have been more marked between the West and the Atlantic seaboard. There are greater facilities, large shipments of cattle and meat are more rapidly handled, and greater convenience is afforded all round, more especially where consignments have been made for European consumption.

THE WESTERN MARKETS.

LET us next refer to the great markets of Western America, the great centres of the cattle industry. The figures on page 395 will show the enormous strides which have been made by the cattle yards of Chicago, St. Louis, and Kansas City, and more recently of Omaha. In the year 1875 the receipts of the three great markets amounted to 1,431,339, in 1889 they had increased to 5,219,154, or at the rate of 265 per cent. During the same period the shipments increased by 143 per cent. The Chicago shipments were nearly doubled, while the consumption, as represented by the difference between commercial receipts and shipments, increased from 224,309 to 1,763,310, a difference which was caused by the packing and canning industry, as well as by the requirements of the increasing population. Kansas City has increased more rapidly than Chicago, and, as the figures show, Omaha is rapidly becoming an important centre. Mr. Dodge remarks that the Missouri River cattle yards promise to rank above Chicago, and to become the centres of cattle distribution for the country between Missouri and the Sierra Nevadas.

Receipts and Shipments of Western Markets.

Cattle.

Years.	Chicago.		St. Louis.		Kansas City.		Omaha.	
	Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments.
1875	920,843	696,534	335,742	216,701	174,754	126,262	....	....
1876	1,096,745	797,724	349,043	220,430	183,378	120,340	....	....
1877	1,033,151	703,402	411,969	251,566	215,768	126,570	....	....
1878	1,083,068	699,108	406,235	261,723	175,344	131,761	....	....
1879	1,215,732	726,903	420,654	226,255	211,415	155,831	....	....
1880	1,382,477	886,614	424,720	228,879	244,709	194,421	....	....
1881	1,498,550	938,712	503,862	293,092	285,863	223,989	....	....
1882	1,582,530	921,009	443,169	188,486	439,671	359,012	....	....
1883	1,878,944	966,758	405,090	249,523	460,780	387,598	....	....
1884	1,817,697	791,884	450,717	315,433	533,526	443,001	....	....
1885	1,905,518	744,093	386,320	233,249	506,627	402,381	114,163	83,233
1886	1,963,900	704,675	377,550	212,958	490,971	370,350	144,457	73,120
1887	2,382,008	791,483	464,828	277,419	669,224	483,372	235,723	151,419
1888	2,611,543	968,385	546,875	336,206	1,056,086	682,622	340,469	206,064
1889	3,023,281	1,259,971	508,190	297,879	1,220,343	744,510	467,340	227,921

There has been no such increase in the Eastern cities. Cattle slaughtered in the West and sent in the refrigerator cars have largely tended to prevent anything like so important an increase in the marketing of live stock. The next table shows the actual figures as applied to the receipts at the four great cities of the East:—

Years.	New York.	Boston.	Philadelphia.	Baltimore.	Total.
1875....	457,057	145,285	152,830	112,679	867,851
1876....	467,722	189,989	190,550	110,366	958,627
1877....	507,832	155,907	203,470	112,862	980,071
1878....	543,587	188,385	188,600	117,675	1,038,247
1879....	575,159	183,556	216,780	150,829	1,126,324
1880....	679,987	230,079	218,606	138,969	1,267,641
1881....	692,570	204,928	225,521	122,174	1,245,193
1882....	628,843	130,900	163,300	92,614	1,015,657
1883....	674,632	161,162	236,050	94,349	1,166,193
1884....	612,976	139,292	154,259	105,002	1,011,529
1885....	562,447	112,995	194,644	90,870	960,956
1886....	513,470	113,316	176,025	96,357	899,168
1887....	498,048	99,584	122,297	85,166	796,495
1888....	515,593	124,416	134,574	170,113	944,696
1889....	638,937	167,342	....	205,479	....

Here we see that New York has fallen off as compared with 1880, that Boston receives fewer cattle than has been the case in many previous years, that there is a considerable falling off in Philadelphia, and that Baltimore is the only city which shows a distinct increase over any year during the last fifteen years.

The increase in the American mutton trade is still more marked. So far, however, it appears to be rather on account of the change in the public taste or fancy than in any practical arrangement made for the purpose of supplying a foreign country. It is said to be owing to the improvement of the mutton; and this improvement, it is believed, will convert the Americans into mutton consumers rather than consumers of beef, as they are supposed to be. In the year 1875 the receipts in the great Western markets amounted to 569,954 head, and the shipments to 299,130. In 1889 the receipts had increased to 2,720,789, and the shipments to 1,244,791, showing an increase of 377 per cent in receipts and 316 per cent in shipments. There is, moreover, little doubt that the increase in the size of the carcases has been very considerable during the same period. The next table shows how these figures have been periodically increased in the different cities.

THE SOURCES OF OUR MEAT SUPPLY.

Receipts and Shipments of Sheep.

Years.	Chicago.		St. Louis.		Kansas City.		Omaha.	
	Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments.
1875..	418,958	243,604	125,679	37,784	25,327	17,742	....	....
1876..	364,095	195,925	157,831	67,886	55,045	22,460	....	....
1877..	310,840	155,354	200,502	87,569	42,190	28,329	....	....
1878..	310,420	156,727	168,095	74,433	36,700	30,483	....	....
1879..	325,119	159,266	182,648	88,083	61,684	47,782	....	....
1880..	335,810	156,510	205,969	93,522	50,611	36,285	....	....
1881..	493,624	253,938	334,426	170,395	79,924	61,078	....	....
1882..	628,887	314,200	443,120	245,071	80,724	52,652	....	....
1883..	749,917	801,630	398,612	217,370	119,665	61,979	....	....
1884..	374,463	290,352	380,822	248,545	237,964	105,973	....	....
1885..	1,003,598	260,277	362,858	233,391	221,801	115,755	18,985	8,408
1886..	1,008,790	266,912	328,985	202,728	172,659	83,234	40,195	17,728
1887..	1,360.862	445,094	417,425	287,018	209,956	103,126	76,014	56,444
1888..	1,515,014	601,241	456,669	316,676	351,050	169,932	158,503	118,208
1889..	1,832,469	711,315	358,495	255,375	370,772	174,851	159,503	103,250

The increase in the four Eastern States has been about 50 per cent, and as this is considerably larger than the increase in the population, it is evident that much more mutton must have been consumed than was formerly the case. Distributing the percentage over the four cities, we find that the increase has been 53 per cent in New York, 45 per cent in Boston, 21 per cent in Philadelphia, and 129 per cent in Baltimore.

Receipts in the Chief Eastern Cities.

Years.	New York.	Boston.	Philadelphia.	Baltimore.	Total.
	$	$	$	$	$
1875..	1,233,968	372,370	491,500	191,485	2,289,323
1876..	1,211,086	348,510	548,850	223,267	2,331,713
1877..	1,184,687	346,647	545,870	96,786	2,173,990
1878..	1,349,622	372,787	650,400	220,135	2,592,944
1879..	1,507,739	479,227	619,450	243,520	2,849,936
1880..	1,656,955	476,785	623,494	248,047	3,005,281
1881..	1,738,626	505,828	645,792	305,496	3,195,742
1882..	2,066,502	626,608	614,000	202,241	3,509,351
1883..	2,036,018	648,790	680,417	198,060	3,563,285
1884..	2,041,774	628,991	683,546	216,286	3,570,597
1885..	1,849,277	639,847	616,573	178,712	3,284,409
1886..	1,997,751	524,089	585,579	219,645	3,125,064
1887..	2,025,116	591,476	588,279	227,456	3,432,327
1888..	1,882,763	538,490	594,612	438,910	3,454,775
1889..	1,805,805	540,460	....	421,951	....

RECEIPTS AND SHIPMENTS OF SWINE.

YEARS.	CHICAGO.		ST. LOUIS.		KANSAS CITY.		OMAHA.	
	Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments.
1875	3,912,110	1,582,643	628,569	126,729	63,350	15,790	....	....
1876	4,190,006	1,131,635	877,160	232,876	153,777	26,264	....	....
1877	4,025,970	951,221	896,319	314,287	192,645	15,973	....	....
1878	6,339,654	1,266,906	1,451,634	528,627	427,777	91,671	....	....
1879	6,448,300	1,692,361	1,762,724	686,099	588,908	208,851	....	....
1880	7,059,355	1,394,990	1,840,684	770,769	676,477	152,920	....	....
1881	6,474,844	1,289,679	1,672,153	889,909	1,014,304	195,524	....	....
1882	5,817,504	1,747,722	846,228	264,584	963,036	191,325	....	....
1883	5,640,625	1,319,392	1,151,785	609,388	1,379,401	313,879	....	....
1884	5,351,967	1,392,615	1,474,475	678,874	1,723,586	590,133	....	....
1885	6,937,535	1,797,446	1,455,535	789,487	2,358,718	801,162	130,867	71,919
1886	6,718,761	2,090,784	1,264,471	530,362	2,264,484	538,005	390,487	187,369
1887	5,470,952	1,812,001	1,052,240	324,745	2,423,262	524,492	1,011,706	140,726
1888	4,921,712	1,751,829	929,230	294,869	2,008,984	413,937	1,283,600	333,228
1889	5,988,526	1,786,659	1,120,930	420,310	2,073,910	331,434	1,206,605	179,916

Lastly we come to the increase in swine, and give in a similar manner the receipts and shipments at both Western and Eastern markets (see pages 398-9). In 1875 the receipts in the Western markets amounted to 4,604,029, and in 1889 to 10,389,971, or at the rate of 126 per cent. In the Eastern States the increase has been only 59 per cent; but this too is considerable, and accounts very largely for the immense amount of pig meat which is transported to this country.

RECEIPTS IN THE CHIEF EASTERN CITIES.

YEARS.	New York.	Boston.	Philadelphia.	Baltimore.	TOTAL.
1875.....	1,388,517	331,989	243,300	279,631	2,243,437
1876.....	1,222,657	361,317	289,900	259,064	2,132,938
1877.....	1,268,596	330,604	242,400	322,845	2,164,545
1878.....	1,794,539	510,432	282,060	260,514	2,847,545
1879.....	1,725,537	582,615	341,450	356,524	3,006,126
1880.....	1,719,137	691,839	346,960	336,867	3,094,803
1881.....	1,533,526	708,900	367,876	338,551	2,948,853
1882.....	1,366,848	816,535	186,800	268,811	2,638,994
1883.....	1,586,243	771,757	383,312	271,148	3,012,460
1884.....	1,697,430	785,261	311,404	282,664	3,076,759
1885.....	1,919,063	790,332	326,456	265,381	3,301,232
1886.....	1,980,656	930,787	333,849	323,643	3,568,935
1887.....	1,791,531	1,039,692	329,561	504,619	3,665,403
1888.....	1,549,837	1,063,827	344,729	613,959	3,572,342
1889.....	1,761,623	1,143,314	....	702,966	....

During the past two years America has sent the following meat-producing stock and meat of various kinds to other countries :—

TOTAL EXPORTS.

ARTICLES.		1888.		1889.	
		Quantities.	Value.	Quantities.	Value.
			$		$
Animals Living—					
Cattle	Numbers	140,208	11,577,578	205,786	16,616,917
Swine	,,	23,755	193,097	45,128	356,764
Sheep	,,	143,817	280,490	128,852	366,181
Beef Products—					
Beef, canned	Pounds	40,458,375	3,339,077	51,025,254	4,375,213
,, fresh	,,	93,498,273	8,231,281	137,895,391	11,481,861
,, salted or pickled	,,	48,980,269	2,608,479	55,006,399	3,043,324
,, otherwise cured	,,	83,151	8,579	194,036	17,819
Mutton	,,	224,738	18,641	296,220	25,995
Pork Products—					
Bacon	,,	331,306,703	27,187,175	357,377,399	29,872,231
Hams	,,	44,132,980	4,988,458	42,847,247	4,779,616
Fresh	,,	63,187	4,423	22,794	1,662
Salted or cured	,,	58,836,966	4,368,691	64,110,845	4,733,415

THE CHICAGO TRADE.

THE principal firms in the meat trade of Chicago are Messrs. Armour and Co., Nelson, Morris, and Co., Swift and Co., Hammond and Co., and Libby, Mc.Neill, and Libby. The whole of their businesses have been built up in the course of the last twenty years. The first to take the matter in hand was Mr. Hammond, of Detroit, a gentleman who died in the fulness of his strength after creating an immense business. According to the *Chicago Exchange*, the number of cattle killed during a recent year was 815,000 by Messrs. Swift and Co., 480,000 by Messrs. Armour and Co., and 283,000 by Messrs. Hammond and Co. The number of cattle slaughtered for dressed beef during the same year by Messrs. Swift and Co. was 678,000; by Messrs. Armour and Co., 298,000; and by Messrs. Hammond and Co., 283,000.

For the canning trade, Messrs. Swift and Co. slaughtered 136,135, and Messrs. Armour and Co. 190,000.

Messrs. Swift and Co. employed about 4,000 men; Messrs. Armour and Co., 5,000, including men employed in the pork packing department, who number some 2,000; and Messrs. Hammond and Co., about 900. Messrs. Swift and Co. employed from ten to twelve buyers, Messrs. Armour and Co. seven, and Messrs. Hammond and Co. from seven to nine. The wages paid by Messrs. Swift and Co. varied between 6s. and 18s. per day. Messrs. Armour and Co. paid their buyers from £400 to £1,400 per annum, their expert butchers from 16s. to 18s. a day, helpers 12s. a day, and labourers 7s. The number of cattle sold by these firms to the principal cities of the East of America, which practically took the surplus over what was packed or canned for export, is as follows: Messrs. Swift and Co. sent to New York 117,000, to Philadelphia 60,000, to Baltimore 17,000, to Washington 10,000, and to Boston 54,000. Messrs. Armour and Co. shipped to Philadelphia 16,000, to Boston 30,000, and to New York and Brooklyn 26,000. The average percentage of dressed beef obtained in proportion to live stock is as follows: Messrs. Swift and Co., 57 per cent; Messrs. Armour and Co., 57 per cent; Messrs. Hammond and Co., 55¼ per cent. Messrs. Swift and Co. have killed no less than 4,528 head of cattle in a day; Messrs. Armour and Co., for dressed beef 1,710, and for canning 2,300, in all 4,010; and Messrs. Hammond and Co., 1,449. The average number killed daily by Messrs. Swift and Co. was 2,612; by Messrs. Armour and Co., 1,600; and by Messrs. Hammond and Co., 900. The average price per 100lbs. obtained, in 1888, by Messrs. Swift and Co., for dressed beef only, was 17s. 3d.; by Messrs. Armour and Co., 17s.; and by Messrs. Hammond and Co.,

16s. 6d. The average weights of the cattle in the same year were: Messrs. Swift and Co., 1,146lbs., dressed beef only; and Messrs. Armour and Co., 1,144lbs.

The American *Breeders' Gazette* recently called attention to the fact that the American exports to England were 60 per cent greater for the first eight months of 1890 than during the same period in 1889. It remarks upon the wide margin between the selling price of live cattle at the Union stock yards and the price which the consumer pays for the beef, and also upon that between the stock-yard price and the price at which the cattle sell in England. Although the demand has so materially increased, it was urged that there is no increase in the number of cattle as compared with previous years. This, however, as we have shown elsewhere in this report, is not correct. Speaking on the subject of better marketing, the writer refers to the fact that a breeder and feeder of stock sold a good lot of well-bred cattle at 18s. 6d. per 100lbs., his excuse for not holding longer being that the food was short, that maize was worth 2s. per bushel, and he could not quite see how money was to be made by feeding maize at this price to cattle. He based his arguments upon the receipts of cattle at the Chicago yards, and estimated that there were a great many cattle in the country; but the writer claims that American farmers are not well supplied with information upon this point. He believes that if they were enabled to know as accurately as possible how many cattle were received at the leading markets, how many slaughtered for dressed beef for export, and how many shipped from the chief slaughtering stations and by the local butchers, they would be enabled to obtain better prices. There is little doubt that in the past shipments at very low prices have been made, and that had the feeders of stock been able to hold their hands, as the dealers, slaughterers, and shippers do, they would have made larger prices. It must not, however, be supposed that live or dead meat has of late been rushed into the British market at prices below its value, for the middlemen in the United States have a well-organised system, which they carry out in a remarkably complete manner. It has been frequently declared in America that the three or four million head of cattle delivered annually in Chicago have only returned to their breeders and feeders one-half the sum which has been paid for them by the consumer. On the part of the large packing houses it is contended that by the assistance of cold storage they are enabled to hold a supply for at least fifteen days, by means of which they are empowered to influence the market in a remarkable manner. This, however, is not peculiar to America. London buyers are able to protect themselves in a similar manner, and in the cold stores of Messrs. Spiers and Pond we have seen very large supplies of excellent meat, which

have enabled the firm to market with the best possible advantage. The Chicago houses, however, have little to contend against in other quarters, for they have few competitors, and probably none of whom they need have any fear.

THE LIVE MEAT MARKET.

In order to afford the most recent information with respect to the American live-stock market, some details are extracted from American stock journals, showing the prices, sales, and in some instances the average weights of animals marketed. During the third week in October the highest price paid for cattle, together with the average weight of the animals sold on each day of the week, are contained in the following figures, which were compiled by the *Kansas Live Stock Indicator* :—

Day.	Average Weight.	Price per 100lbs.
	lbs.	$
Thursday	1,315	4·15
Friday	1,310	4·60
Saturday	1,251	4·35
Monday	1,346	4·25
Tuesday	1,362	4·72½
Wednesday	1,375	4·80

The highest price in the previous week was $4·90, the steers averaging in that week 1,578lbs. The Colorado steers sold averaged about 1,100lbs. each; half-bred steers averaged 1,357lbs. each. A number of steers from New Mexico and from Arizona weighed from 720lbs. to 890lbs., whereas Texas steers in previous weeks weighed from 1,140lbs. to 1,300lbs., and spayed heifers 850lbs. each.

The sheep trade with Chicago is comparatively small, the sheep in general being described as Westerns, Colorado Muttons, and New Mexicos. The last-named averaged 66lbs. each in weight, and $3·30 in price. The Westerns averaged 79lbs. each in weight, and $3·30 in price. The Colorados averaged about 85lbs. in weight, and $3·55 in price. In the previous week, when a large number of lambs were on sale, the average weight was 80lbs., and the average price $5·15. The next table shows the highest and lowest price, in dollars, paid during the week for pigs, together with similar prices paid on the same days in the previous year :—

	1890. Per 100lbs.	1889. Per 100lbs.
Thursday	3·40 to 4·30	3·80 to 4·20
Friday	3·40 ,, 4·25	3·80 ,, 4·10
Saturday	3·65 ,, 4·15	3·00 ,, 4·12½
Monday	3·60 ,, 4·15	3·80 ,, 4·10
Tuesday	3·70 ,, 4·12½	3·60 ,, 4·12½
Wednesday	3·50 ,, 4·20	3·80 ,, 4·10

The receipts are given on two particular days. On the Tuesday they numbered 17,492 head, and on the Wednesday 13,572. The bulk of the sales were effected at from $3·90 to $4·10. According to the accounts compiled by the *Cincinnati Price Current*, the number of swine packed from the 1st of March to the 15th of October was as follows. It will be seen that the increase, as compared with the previous year's packings, was very considerable. In only three instances are the figures lower :—

	March 1st to October 15th.		
	1890.		1889.
	Number.		Number.
Chicago	2,895,000	....	2,080,000
Kansas City	1,277,000	....	958,000
Omaha	843,600	....	609,000
Sioux City	388,200	....	272,000
Indianapolis	381,000	....	276,000
St. Louis	313,000	....	365,000
Milwaukee	326,000	....	249,000
Cedar Rapids	261,660	....	174,535
Cincinnati	203,000	....	171,000
Cleveland	202,975	....	168,000
Wichita, Kansas	188,200	....	66,000
Ottumwa, Iowa	164,100	....	128,900
St. Joseph, Montana	89,000	....	99,500
Lincoln, Nebraska	80,602	....	95,508
South St. Paul, Minnesota	129,589	....	119,350

Dealing with the weight of the hogs marketed in the stock yards in Kansas City, some extremely instructive figures are given. These figures afford a very valuable clue to the quantity of pig meat consumed both in this country and America, for, as it is shown in this paper, it is necessary not only to estimate the number of animals slaughtered for home consumption, but their average weight.

AVERAGE WEIGHT OF HOGS MARKETED AT KANSAS CITY STOCK YARDS DURING THE YEARS 1885, 1886, 1887, 1888, AND 1889.

	1885.	1886.	1887.	1888.	1889.
	lbs.	lbs.	lbs.	lbs.	lbs.
January	249	232	246	210	237
February	247	233	229	210	232
March	252	221	223	203	230
April	247	224	221	209	224
May	247	223	221	211	220
June	230	222	225	212	220
July	220	216	224	205	227
August	218	217	212	211	229
September	235	226	212	216	228
October	229	233	230	225	240
November	251	250	240	239	239
December	256	255	224	236	244
Average weight for the year..	239·8	230	226	217	231

The largest number of cattle received in the Kansas City yards in one day was 11,233, on October 23rd, 1888; the largest number of swine received was 21,765, on November 15th, 1887; and of sheep, 6,033, on May 26th, 1888.

AUSTRALIA.

THE production of meat in the Australian colonies is a fascinating subject, and it is one with which we shall have to reckon in a much more extended sense in the near future. According to Mr. Coghlan, the statistician for New South Wales, the following figures represent the stock in each colony in the year ending March 31st, 1889 :—

LIVE STOCK IN THE AUSTRALIAN COLONIES, 1888–9.
Thousands ("000") omitted.

COLONY.	Sheep.		Cattle.		Pigs.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
New South Wales	46,503	48·15	1,622	17·49	248	21·80
Victoria	10,818	11·20	1,370	14·77	245	21·56
Queensland	13,444	13·92	4,654	50·17	68	6·05
South Australia..	7,150	7·40	430	4·64	170	14·91
West Australia ..	2,112	2·19	95	1·03	25	2·20
Tasmania	1,430	1·48	142	1·53	43	3·79
*New Zealand ..	15,122	15·66	962	10·37	338	29·69
	96,580,639	100	9,278,540	100	1,140,205	100

Cattle have increased in Australasia from 1,000,000 in 1842, and 4,000,000 in 1861, to 8,750,000 in 1881, and 9,250,000 in 1888. Sheep have grown by leaps and bounds from 6,333,000 in 1842 to 49,750,000 in 1871, and 96,500,000 in 1888–9. At the same time, however, the population has failed to keep pace with the increase even as regards its original ratio if we except cattle. There are no less than 26·30 sheep per inhabitant, but only 2·53 head of cattle and 0·31 pigs. Again, in illustration of the fact that vast acreages are still wholly or partially unoccupied, Mr. Coghlan gives the number of acres per sheep in each colony, making a proper allowance for cattle and other stock :—

	No. of acres per sheep.
New South Wales	2·92
Victoria	2·01
Queensland	6·75
South Australia	42·86
Western Australia	176·70
Tasmania	5·23
New Zealand	2·21
Australasia	9·42

* The figures respecting New Zealand sheep are for May, 1888, and those given for cattle and pigs are estimated.

In New South Wales alone there is said to be scope enough for 200,000,000 sheep in excess of the present number.

Australians are large eaters of beef, the consumption of meat being the largest in Queensland (370lbs. per head); but on the average of the three colonies of New South Wales, Victoria, and Queensland, 175lbs. of beef, 89lbs. of mutton, and 12lbs. of pork per head are consumed per annum. A few further figures taken from Mulhall will show how this return compares with our own and with that of other countries :—

CONSUMPTION OF MEAT PER HEAD PER ANNUM.

Australasia.	Great Britain.	France.	Germany.	United States.
lbs.	lbs.	lbs.	lbs.	lbs.
276	105	74	69	120

Again, it is shown that while the total increase of cattle and sheep is 10·4 per cent per annum, the quantity required for home consumption and export equals 9·4 per cent of cattle and 6·8 per cent of sheep, so that the net annual increase is about 1 per cent of cattle and 3·6 per cent of sheep. Mr. Coghlan remarks, however, that under the most favourable conditions the net increase would be much greater, sheep 24·3 and cattle 24·9 per cent. In consequence of droughts, however, sheep scarcely exceed 20 per cent of what is possible, and cattle no more than 6 per cent.

QUEENSLAND.

I AM indebted to the High Commissioner for Queensland for a copy of the statistics of the colony for the year 1889, from which it appears that horned cattle, sheep, and pigs have all increased in Queensland during the last ten years, as may be seen from the following figures :—

	Cattle.	Sheep.	Pigs.
1880	3,162,752	6,935,967	66,248
1889	4,872,416	14,470,095	80,730

(The figures are slightly in excess of those given by Mr. Coghlan.)

Of this number, 11,266 cattle and 85,988 sheep were slaughtered for preserving, freezing, or boiling down. The population increased between 1881 and 1889 from 213,525 to 406,658 persons. The exports to Great Britain consist solely of unenumerated preserved meats, the quantities and values of which fluctuate considerably, as the following figures show :—

EXPORTS OF MEAT FROM QUEENSLAND TO GREAT BRITAIN.

	1885.	1886.	1887.	1888.	1889.
Cwt.	17,231	4	11,603	246	1,317
Value, £	40,679	8	25,465	454	4,568

The exports over the border (cattle and sheep) are considerable, the cattle being of the value of £689,000, and the sheep £33,000, over and above the imports. The total exports of meats preserved other than by salt have decreased in value from £171,638 in 1885 to £17,574 in 1889. In spite, however, of the fluctuating nature of the trade in the past, it is tolerably clear that Queensland can not only provide for her own population with ease, but inaugurate an export trade with the mother country of much greater dimensions before she is much older.

EXPORTS FROM QUEENSLAND TO THE UNITED KINGDOM.

Meat unenumerated, preserved otherwise than by salting.

	1884.	1885.	1886.	1887.	1888.	1889.
Cwt.	9,265	17,231	4	11,603	246	1,317
Value.	£19,924	40,679	8	25,465	454	4,568

VICTORIA.

VICTORIA is not so heavily stocked as either of the other colonies if we take into consideration the acreage she possesses. In 1888 the quantity of meat sent, other than preserved meat by salting, was very trifling, consisting only of 9 cwt. of salt beef and 123lbs. of ham. Preserved meats form a very considerable item, but they have fallen off considerably since 1884, when large consignments of mutton were despatched in the carcase. This trade has ceased entirely, and yet, considering that the sheep in the colony number nearly two-thirds as many as we have in Great Britain, with a proportionally very large number of cattle, while the population is only slightly over a million, there appears to be no reason why, when the trade assumes a more economical aspect, we should not again find her a competitor in our markets.

EXPORTS FROM VICTORIA TO THE UNITED KINGDOM.

YEAR.	Meat unenumerated, preserved otherwise than by salting.		Mutton—Fresh.	
	Cwt.	£	Cwt.	£
1884.....	26,140	60,176	35,094	90,799
1885.....	17,226	42,015	44,489	107,306
1886.....	5,972	13,348	32,949	65,505
1887.....	6,510	15,145	21,518	41,925
1888.....	3,097	7,407	....	....
1889.....	5,938	16,107	....	....

NEW SOUTH WALES.

THE meat-producing stock in the colony include 46,500,000 sheep and 1,600,000 cattle. While the sheep have increased at an enormous rate—however irregularly, since 1860, when they were only 6,000,000—the number of cattle is considerably less than at that period, indeed it exceeded 3,000,000 in 1876. The population, however, is but little in excess of 1,000,000. The statistical register of the colony shows that 725,000 head were slaughtered in 1888 at Glebe Island abattoirs, of which 585,000 were sheep and lambs; and 1,671,000 sheep, 76,900 lambs, 223,000 cattle and calves, and 135,000 pigs at the 1,410 slaughtering establishments in the colony.

From the same source we find that there was no less than 7,057,903lbs. of bacon and hams cured in 1888, the total production in each district being given. It is a noticeable fact that the extent of dairying has no relation to the bacon produced, unless in one or two cases.

There is in New South Wales nearly one-half the total quantity of sheep in Australasia, and the colony also stands second in the number of cattle it possesses, although this number is considerably less than half those in Queensland. The export trade of the colony, however small it may be as compared with that of New Zealand, is by far larger than that of any other Australian colony. The following figures represent the quantities and values for the past six years :—

EXPORTS FROM NEW SOUTH WALES TO THE UNITED KINGDOM.

YEAR.	Meat unenumerated, preserved otherwise than by salting.		Mutton—Fresh.	
	Cwt.	£	Cwt.	£
1884.....	65,722	165,739	26,364	72,659
1885.....	136,793	327,074	9,085	24,333
1886.....	35,956	90,266	4,762	8,480
1887.....	117,155	275,805	20,927	35,683
1888.....	90,905	189,489	44,489	86,160
1889.....	24,467	67,409	30,999	59,419

SOUTH AUSTRALIA.

THIS colony is of vast extent, ranking second in acreage, but its inhabitants in 1888 numbered only 313,000, so that in this respect it ranks superior only to Western Australia and Tasmania. It has only 0·34 persons per square mile, about one-eleventh the number in the Argentine Republic, or one-fourth that of Canada. How slight this population is may be estimated by comparing it with the United

Kingdom, which is populated at the rate of 308 persons per square mile. We have seen that South Australia possesses 7,000,000 sheep, or, calculating ten sheep per head of large stock, one sheep per 42·86 acres. This suggests how considerable may be the future increase, although, as in Queensland, it is possible that as land is brought under cultivation a considerable acreage may be brought into the cultivation of maize, which in its turn may be converted into beef or pork. In any case, we shall have to reckon with the 903,000 square miles of territory to which the colony extends. The exports, not very considerable, were as follows during 1884, 1885, 1888, and 1889. No meat was exported in the years omitted. Wool was sent us, however, to a very large extent :—

EXPORTS FROM SOUTH AUSTRALIA TO THE UNITED KINGDOM.

Meat unenumerated, preserved otherwise than by salting.

	1884.	1885.	1888.	1889.
Cwt.....	194	118	1,222	23
Value...£	530	220	2,912	550

NEW ZEALAND.

ALTHOUGH the meat trade between this country and New Zealand is chiefly confined to mutton, a not inconsiderable quantity of beef (preserved) and other meats find their way to our shores. For example, in 1889 the imports were as follows :—

EXPORTS OF MEAT IN 1889. NEW ZEALAND GOVERNMENT RETURN.

	Cwt.	Value.
Frozen Beef	68,296	£81,520
,, Mutton	547,015	641,562
,, Lamb.....	41,243	59,965
,, other kinds	710	1,432
Potted and preserved	32,036	64,612
Fresh (?).....	143	133
Beef, salted	233	233
Salt Pork	79	137
Unenumerated	345	436
	690,100	£850,030

According to the above prices the mutton would average 23·4 shillings per cwt., or about 2½d. per pound, whereas, there having been 990,026 carcases, each carcase would average about 61lbs. in weight. The above return, kindly furnished by Sir F. Dillon Bell, is quoted chiefly to show the quantities of meat not specified separately in the British returns, and the variation in the value as compared with that expressed in the returns we have extracted from the annual statement of trade.

IMPORTS OF NEW ZEALAND MEAT, 1884 TO 1889. (BOARD OF TRADE.)

Year.	Meat unenumerated, preserved otherwise, &c.		Mutton—Fresh.		Beef.	
	Cwt.	£	Cwt.	£	Cwt.	£
1884.....	27,245	62,820	240,613	653,634	..	..
1885.....	26,790	63,193	284,013	704,919	8,844	23,427
1886.....	15,444	32,776	346,565	768,424	10,962	24,208
1887.....	31,893	70,395	395,638	841,208	8,398	16,249
1888.....	32,821	66,814	498,628	1,018,013	40,490	84,392
1889.....	33,565	69,399	568,499	1,206,326	75,131	141,247

New Zealand, although sending us by far the largest portion of her surplus meat, has a trade with the various colonies of Australia, Tasmania, Fiji, the South Sea Islands, and some smaller colonies. Whence the exports from the colony are shipped will be seen by the next table, prepared by Mr. P. Cunningham, of Christchurch, N.Z., which also indicates how considerably the trade appears to be increasing in each branch. The only British returns available at the time we write show that during the first nine months of 1890 we have received 704,441 cwt. of mutton from Australasia, as compared with 450,667 cwt. in the corresponding period of last year.

EXPORTS OF FROZEN MEAT, JANUARY 1ST TO JUNE 30TH, 1890.

—	Mutton.	Lamb.	Total Weights.	Beef.
	Carcases.	Carcases.	lbs.	lbs.
Auckland	6,964	1,320	468,213	59,858
Gisborne	33,290	1,661	2,264,673	..
Napier	212,770	25,920	13,839,854	591,556
Wellington	146,248	25,738	10,295,214	4,380,665
Lyttelton	177,724	149,463	15,683,811	163,577
Timaru	20,391	9,335	1,525,164	..
Oamaru.....	53,059	22,388	3,790,882	54,947
Dunedin	41,332	10,538	2,904,278	..
Bluff	26,547	3,058	1,768,409	..
Total half year	718,325	249,421	52,540,498	5,250,603
Total last six months, 1889	494,477	10,783	30,532,195	3,384,229
Total for year	1,212,802	260,204	83,072,693	8,634,832

In addition to the carcases of mutton, but included in the above weights, there were legs and pieces of mutton as follows:—In 1890 four legs from Napier; 59,801 legs from Wellington; 722 legs and 2,863 pieces from Lyttelton; also, in 1889 (last six months), 29,522 legs and 52 pieces from all ports.

The New Zealand trade in frozen mutton is not an ancient one. It began, practically speaking, in 1882, and has rapidly attained large proportions on account alike of the cheapness and quality of the meat. In 1889, the price, however, was strengthened owing to

the stoppage of the German trade in live sheep. The Germans tried the carcase trade, but it did not promise them a successful issue. In 1889 the quality of the meat was considered superior to that of 1888, while the bulk of the mutton from the River Plate did not maintain its standard. During the first six months of 1890 the following number of carcases were received :—

FROZEN SHEEP RECEIVED IN LONDON, JANUARY 1ST TO JUNE 30TH, 1890.

Australia	104,951
New Zealand	763,758
River Plate, &c.	57,325
	926,034

In Liverpool, 433,638 carcases were received from the River Plate. There were 14 cargoes in the six months, comprising 220,000 carcases, all of which were good with two exceptions. The following table indicates the prices of mutton, British and Australian, during the past five years :—

LONDON PRICES CURRENT FOR PRIME MUTTON IN THE CARCASE.

TOP QUOTATION.

1885.	January.	April.	July.	October.	Average Top Price.
	d.	d.	d.	d.	d.
Scotch, per lb.	7½	7½	8½	7	7¾
English, „	6¾	7	8	6½	7⅛
Australian, „	5	6	4¾	4	4⅞
New Zealand, „	5¼	6¼	5½	5	5 5/12
1886.					
Scotch, „	7¼	8½	9¼	7½	8⅛
English, „	7	8½	8¾	7½	8
Australian, „	..	..	4¾	3½	4 5/16
New Zealand, „	5¼	5½	5½	4¼	5⅜
1887.					
Scotch, „	7¼	6¾	7¼	7	7 1/12
English, „	7	6½	7	6½	6⅝
Australian, „	4¼	4⅛	..	3¾	4
New Zealand, „	4¾	4½	4	4	4⅛
1888.					
Scotch, „	7	7½	8¾	8¼	7⅞
English, „	6¾	7	8¼	7¾	7½
Australian, „	3½	4	4¼	4¾	4 1/12
New Zealand, „	3⅞	4¼	5¼	5⅜	4½
1889.					
Scotch, „	8¼	8¼	8¾	8½	8½
English, „	8	8	8½	7¾	8¼
Australian, „	3⅝	..	5¼	4½	4⅜
New Zealand, „	4	4¾	5½	5	5 1/12

The circular of the "New Zealand Loan and Mercantile Agency," for July 11th, gives the then prices per stone of 8lbs. as follows:—

	s.	d.		s.	d.
Prime Scotch Mutton (wethers)	5	2	@	5	6
,, English ,, ,,	5	0	,,	5	4
English Mutton (ewes)	4	0	,,	4	4
Town-killed Foreign Mutton	4	4	,,	4	8
Continental Mutton	4	4	,,	4	8
Prime Scotch Beef				4	4
,, English ,,				4	4
,, Foreign ,, (town-killed)				3	10
,, Selected New Zealand Mutton	3	2	,,	3	4
Average New Zealand Mutton	3	0	,,	3	2
Inferior ,, ,,	2	10	,,	3	0
Prime Queensland Mutton		none.			
,, Sydney Mutton	2	7	,,	2	8
,, River Plate Mutton	2	4	,,	2	6
,, New Zealand Lamb	3	10	,,	4	2
,, ,, Beef, hind quarters				2	4
,, ,, ,, fore quarters				1	4
,, Queensland Beef, hind quarters	2	2	,,	2	4

The consignments of mutton and lamb since the commencement of the business number 171 from Australia and 265 from New Zealand. Of these, 331 have been "good to perfect" and 31 "unsatisfactory."

The next table shows the actual number of carcases and pieces of beef received from New Zealand alone:—

CONSIGNMENTS OF MUTTON AND LAMB TO LONDON, 1882–9.

YEAR.	Carcases.	Beef Pieces.	No. of Shipments.	Condition on Arrival.		
1882.....	8,839	....	2	2	..	..
1883.....	120,893	728	15	10	4	1
1884.....	412,349	1,725	39	27	8	4
1885.....	492,269	11,916	38	31	5	2
1886.....	655,888	16,264	40	30	8	2
1887.....	766,417	6,973	38	28	10	..
1888.....	938,766	25,888	45	37	7	1
1889.....	1,068,506	42,722	48	39	7	2
Total	4,463,927	106,216	265	204	49	12

The largest cargo of mutton from New Zealand ever landed was that by the "Mamari," in November last, consisting of 48,706 sheep and 1,051 lambs, besides several pieces of mutton. During the summer of 1890 a steamer from the River Plate landed 51,400 carcases. These, however, are said to have weighed 10lbs. to 15lbs. per head lighter than those from New Zealand.

Efforts for the improvement of sheep in New Zealand are being continued, and we notice that last year 239 animals were exported from this country for stock purposes, in addition to a few head of cattle. On the other hand, there are exports from New Zealand consisting, in 1889, of 1,036 cattle, chiefly consigned to Victoria, New South Wales, Queensland, and the South Sea Islands, 266 pigs mostly going to Fiji, and 4,793 sheep to Fiji and the South Sea Islands. The increase in the cold storage depôts in the Metropolis cannot fail to influence the price of New Zealand meat. We recently (October, 1890) inspected those under the central market, Smithfield, which were well filled with frozen mutton, 50,000 carcases having been stored away at one time. The arrangements are good and the charges moderate, although there are differences of opinion as to the relative merits of the various systems of freezing. We also inspected the stores in Gracechurch Street, and those of Messrs. Spiers and Pond, at Ludgate, in both of which Stern's system is adopted.

CANADA.

THE exports of live and dead meat from the Dominion reached £2,333,000 in value in 1889, or £666,000 more than in the previous year. Statistics as regards Canadian farm stock have not been compiled so systematically as in many other countries, but upon the return of the British farmer delegates considerable information will doubtless be afforded. In 1888, Mr. Bear called attention to the fact that America sent us two hundred times as many hams as Canada, but that immense quantities of Canadian hams were offered by provision dealers who so rarely expose American hams for sale. According to the most recent Canadian returns, the value of the hams sent us was £3,760, against a value of £2,226,063, the sum appearing in the Board of Trade returns as representing the hams imported from America in 1889.

THE SOURCES OF OUR MEAT SUPPLY.

IMPORTS FROM THE DOMINION OF CANADA.

YEAR.	Oxen, Bulls, and Cows.		Sheep and Lambs.		Bacon and Hams.	
	No.	£	No.	£	Cwt.	£
1884.....	61,031	1,300,816	61,367	127,249	240,233	593,988
1885.....	68,430	1,372,791	39,684	80,048	285,022	584,791
1886.....	67,203	1,208,678	94,343	184,050	294,909	609,233
1887.....	65,125	1,134,822	35,473	65,738	285,627	641,351
1888.....	60,977	1,076,623	45,339	89,272	157,583	371,108
1889.....	84,444	1,464,073	55,857	111,128	297,287	631,671

IMPORTS FROM THE DOMINION OF CANADA.—*Continued.*

YEAR.	Beef—Fresh.		Beef and Pork—Salted.		Meat unenumerated, preserved otherwise than by salting.	
	Cwt.	£	Cwt.	£	Cwt.	£
1884.....	23,606	65,953	12,960	23,735	13,967	36,057
1885.....	17,736	47,250	10,759	19,749	10,494	29,836
1886.....	10,054	21,196	9,910	16,102	13,997	30,843
1887.....	169	395	22,017	34,914	71,503	168,330
1888.....	93	199	15,055	26,492	66,204	147,185
1889.....	148	283	16,892	28,843	60,976	143,590

GERMANY.

THE quantity of cattle and sheep received from Germany for slaughter in this country has in the past been considerable; but no cattle have been received since 1888, when the number exceeded 10,000. The sheep trade, too, has collapsed owing to the prohibition order of the Privy Council consequent on the outbreak of foot-and-mouth disease, the number imported in 1889 being more than 100,000 less than in 1888; while during the past year no sheep were received up to September 30th. This great check in the German trade cannot fail to be felt in other directions, and will possibly assist in maintaining home prices. No swine are received from Germany, although German farmers are making considerable efforts to increase the quality and enlarge the size of the swine of their country, as we can personally testify. The following figures show the German imports between the years 1884 and 1889. The exports of live cattle between this country and Germany are not very significant. A few animals of considerable value are sent over for breeding purposes alone. The salt meat under the heading of bacon, pork, and hams, coming from Germany, principally consists of bacon and pork, very large consignments of which are regularly received from the great Hamburg "pig-sticking" house which we have had the opportunity of personally inspecting. These imports, however, have very materially decreased in the past year.

THE SOURCES OF OUR MEAT SUPPLY.

Imports from Germany.

Year.	Oxen and Bulls.		Cows and Calves.		Sheep and Lambs.		Swine.	
	No.	£	No.	£	No.	£	No.	£
1884....	17,310	346,200	7,194	129,440	501,509	1,065,560	8,634	27,326
1885....	14,273	272,863	4,190	72,110	325,553	674,279	86	258
1886....	6,235	97,216	2,099	31,039	339,719	632,365	..	..
1887....	7,873	123,672	2,263	32,908	321,085	554,596	..	..
1888....	10,304	176,347	4,239	66,415	299,589	536,851	..	..
1889....	....	....	..	....	193,191	318,939	..	..

Imports from Germany.—*Continued.*

Year.	Bacon and Hams.		Beef—Salt and Fresh.		Pork—Salt and Fresh.	
	Cwt.	£	Cwt.	£	Cwt.	£
1884....	533,474	1,647,712	6,810	19,528	63,952	91,092
1885....	434,585	1,347,887	937	2,117	42,266	59,668
1886....	337,532	1,036,658	347	601	31,353	34,926
1887....	360,722	1,034,129	345	630	34,513	37,642
1888....	245,525	652,833	834	1,787	27,133	30,451
1889....	64,195	186,552	741	1,700	6,953	8,455

	Cwt.		Value.
Mutton (1888)	1,591	....	£4,096
Meat unenumerated, salted or fresh (1888)..	760	....	2,054
Otherwise preserved	3,547	....	11,139

Appended is a translation of a return received from the German Minister of Agriculture, showing the number of cattle exported by Germany to Great Britain and to the German free ports respectively. It is probable that the difference in the two returns is made up by receipts from the free ports.

Exported to Great Britain.

Year.	Cows.	Bulls.	Oxen.	Cattle below the age of 2½ years.	Calves under 6 weeks.	Swine.	Sucking Pigs under 10 kilos.	Sheep.	Lambs.	Meat, and Preserved Meat.
	*	*	*	*	*	*	*	*	*	*
1885	3,382	32	11,610	789	..	8	12	271,899	17,946	697
1886	1,631	6	4,419	535	3	12	16	256,335	21,192	646
1887	2,166	1	6,397	125	..	2	..	282,777	24,819	1,057
1888	3,959	11	8,821	46	..	2	3	319,601	25,035	11,317
1889	..	..	..	..	..	25	6	202,811	2,499	57,040

* Head of Cattle.

EXPORTED TO THE GERMAN FREE PORTS.

YEAR.	Cows.	Bulls.	Oxen.	Cattle below the age of 2½ years.	Calves under 6 weeks.	Swine.	Sucking Pigs under 10 kilos.	Sheep.	Lambs.	Meat, and Preserved Meat.
	*	*	*	*	*	*	*	*	*	*
1885	12,771	4,551	27,757	35,754	36,655	400,657	2,373	106,590	7,933	55,939
1886	10,545	3,721	24,406	40,460	37,775	271,290	1,678	167,317	9,037	53,701
1887	10,408	3,324	24,603	47,644	27,144	257,882	1,648	161,340	12,483	62,937
1888	9,293	3,191	21,052	39,250	24,421	339,160	1,918	89,549	7,440	64,899
1889	29	2	3	22	1	49	26	178	..	14,611

HOLLAND.

THE Dutch cattle trade, at one time very considerable, has fallen off in consequence of the restrictions which are placed upon the entrance of their cattle into this country. A moderate number, however, have been received and slaughtered upon landing. The principal item of Dutch cattle importation is that of calves. During the first nine months of the past year the number received exceeded 32,000, of the value of £138,000. For some years past we have received more sheep and lambs from Holland than from any other country. In 1889, the number received was about 198,000, considerably less than one-half the number imported from the Netherlands in either of the previous three years. Last year the number received was 105,000 for the first nine months, so that the trade appears to be still declining. The number of swine sent by the Dutch to this country, never very considerable, has materially decreased, as the figures furnished below will show; but as only 332 were imported up to September, 1890, the trade is practically gone. With regard to the dead meat trade, the imports of bacon and hams have fallen to nearly one-half. The quantity of pork, which had risen in 1887 and 1888, dropped to one-half in 1889, and in 1890 there was a further considerable fall, only 14,000 cwt. being received in the first nine months of the year. Dutch mutton is but a very small trade as compared with that of Australasia and the Argentine Republic, yet that shows a considerable decline, the receipts for 1890, up to September, being only 26,000 cwt.

* Head of Cattle.

The Dutch have a very considerable trade in milch cows, and it is probable that they are making efforts in that direction rather than in the production of meat for the English market.

IMPORTS FROM HOLLAND.

YEAR.	Oxen and Bulls.		Cows and Calves.		Sheep and Lambs.		Swine.	
	No.	£	No.	£	No.	£	No.	£
1884.....	2,561	50,888	42,477	214,788	204,563	586,117	17,021	54,597
1885.....	3,670	72,163	39,313	193,583	252,144	626,667	15,777	60,735
1886.....	1,235	22,781	30,491	125,679	468,373	971,776	18,861	56,218
1887.....	5,521	79,786	33,973	147,865	501,701	867,673	20,947	61,549
1888.....	13,056	202,460	37,624	160,236	498,458	954,268	8,173	18,230
1889.....	5,208	83,229	45,478	226,579	197,935	421,854	1,675	3,183

IMPORTS FROM HOLLAND.—*Continued.*

YEAR.	Bacon and Hams.		Pork, Salt and Fresh.		Meat, Salt & Fresh, unenumerated.		Mutton.	
	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
1884	6,356	18,826	21,021	59,739	4,476	13,485	116,422	373,096
1885	7,548	21,506	42,254	116,538	12,601	34,170	80,605	239,809
1886	3,737	10,667	69,489	171,142	28,263	75,236	52,262	131,196
1887	17,132	43,568	121,529	300,596	29,825	69,438	64,375	154,931
1888	66,110	172,348	196,728	440,269	38,651	74,399	88,118	191,063
1889	35,315	95,444	92,029	220,120	42,453	91,244	77,939	175,324

	Cwt.	£
Beef, fresh (1888)	1,550 ..	3,150
Meat preserved otherwise than by salting, unenumerated ..	1,561 ..	5,683

DENMARK.

THERE is probably no people in the world who, taking into consideration the smallness of their number and the capacity of their soil, have made such great strides in the production of meat and dairy goods for export as the Danes. With a population considerably less than half that of London, they have made the greatest name in the world as butter producers. They beat every other country in the production of pig meat if we except the United States, and with the exception of the countries composing the American Continent they send us more live cattle than any other nation. In spite of the fact that much of this trade is owing to the law which shuts out almost every European nation but Scandinavia, they deserve considerable credit for the hold which they have taken upon our markets. The Danes maintain their cattle trade with great determination. In 1889 they considerably increased their exports of cows and calves, although in the first nine months of last year there was a falling off in cows and oxen, but a very large

increase in calves, 21,000 being received, as compared with 7,700 in the same period in the previous year. In 1889 the Danish exports of sheep and lambs, too, showed an enormous increase, which came in opportunely with the decline of German trade; but in 1890 a falling off is shown. The exportation of pigs, at a very recent date absolutely non-existent, has grown into very large proportions, although it fell off considerably last year as compared with 1889. It is, however, in bacon production that the Danes exceed any other European country. This is a natural consequence of their great butter trade, the skim milk being converted into pig meat. Although the trade shows a falling off in the early part of last year, it is too significant to be passed without comment. The exports of live animals to Denmark consist chiefly of swine, of which numbers are sent for the improvement of the Danish pig.

IMPORTS FROM DENMARK.

YEAR.	Oxen and Bulls.		Cows and Calves.		Sheep and Lambs.	
	No.	£	No.	£	No.	£
1884....	42,746	856,260	53,516	905,937	35,234	187,794
1885....	30,211	593,101	37,519	636,057	79,475	129,322
1886....	31,945	410,918	36,941	415,433	120,584	191,724
1887....	25,078	295,285	33,656	345,406	97,846	134,845
1888....	27,385	334,451	39,674	426,833	94,454	134,949
1889....	30,047	359,245	58,806	578,910	153,362	226,163

IMPORTS FROM DENMARK.—*Continued.*

YEAR.	Swine.		Bacon and Hams.		Pork—Salted and Fresh.	
	No.	£	Cwt.	£	Cwt.	£
1884....	....	....	123,586	373,970	38,231	86,651
1885....	251	707	80,053	242,915	37,628	89,321
1886....	1,802	5,027	134,095	404,371	26,107	57,043
1887....	885	2,485	214,205	610,388	35,850	62,653
1888....	16,325	56,521	557,011	1,470,181	69,956	107,863
1889....	21,013	84,212	589,387	1,670,369	62,132	88,285

	Cwt.		Value.
Meat unenumerated, salted and fresh (1888) ..	3,921	....	£4,006

SWEDEN.

SWEDEN ranks next to Denmark as an exporter of cattle to this country, these consisting chiefly of steers, the cows being much fewer and the calves hardly worthy of mention. The sheep and lambs imported from Sweden are not very numerous. The quantity of dead meat is chiefly composed of bacon, which reaches a respect-

able sum in value. Hams, pork, and meat unenumerated are much smaller trades. We do not apprehend a very considerable increase in the Swedish exports in either department, unless it be that of bacon and pork, for pig meat will almost surely be produced in larger quantity as the dairy factory system extends throughout this country. The Swedish official figures, which have been kindly furnished by the State department at Stockholm, are appended, although slightly disagreeing with the official figures of the British statistical department.

IMPORTS FROM SWEDEN.

YEAR.	Oxen and Bulls.		Cows and Calves.		Sheep and Lambs.		Swine.	
	No.	£	No.	£	No.	£	No.	£
1884	12,426	248,012	7,481	98,082	7,749	23,132	..	..
1885	9,566	188,724	3,909	60,389	4,001	10,463	..	..
1886	9,777	133,952	2,957	33,630	6,654	13,365	..	..
1887	10,574	128,853	1,938	23,270	5,524	8,450	..	..
1888	13,016	154,022	3,126	34,928	7,890	11,876	10	30
1889	11,280	135,579	3,443	35,050	12,405	18,760	..	..

Bacon, &c., not given except for 1888.

YEAR.	Bacon.		Hams.		Beef— Salt and Fresh.		Pork.		Mutton.	
	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
1888..	33,870	81,028	751	1,919	..	..	Salted. 871	1,315	..	..
							Fresh. 2,064	4,875		

EXPORTS FROM SWEDEN TO GREAT BRITAIN.

(Swedish Government Returns.)

Animals Living.	1885.	1886.	1887.	1888.	1889.
	Head.	Head.	Head.	Head.	Head.
Bulls	1,475	1,646	774	1,403	941
Oxen	8,427	8,305	10,066	11,977	10,534
Cows	2,208	2,413	1,741	2,697	2,671
Calves	1,102	383	59	71	549
Sheep, Rams	415	1,607	1,093	2,133	3,331
Other kinds	3,357	5,115	4,269	5,780	8,898
Swine, Boars	..	..	Kilos.	Kilos.	Kilos.
Other kinds	Kilos.	Kilos.	6	600	237,121
Bacon, smoked and other kinds	68,256	458,647	1,235,830	2,061,299	25,149 3,666,571
Meat	32,271	15,136	24,605	8,050	Fowls. 1,555 Others. 37,665

NORWAY

THE Norwegian exports are not considerable, although much larger than they were a few years ago. Dealing with the imports of live and dead meat we have, however, to reckon with this country, although its influence has but a small bearing upon our markets.

IMPORTS FROM NORWAY.

YEAR.	Oxen and Bulls.		Cows and Calves.		Sheep and Lambs.		Swine.	
	No.	£	No.	£	No.	£	No.	£
1884.....	865	17,300	107	2,075	..	..	..	..
1885.....	352	7,020	40	665	..	..	..	..
1886.....	351	5,906	55	716	..	..	..	..
1887.....	154	2,307	19	315	..	..	..	..
1888.....	328	4,498	14	192	9,224	11,290	..	..
1889.....	155	1,499	497	4,599	..	..	..	..

Meat (unenumerated) preserved otherwise than by salting, 1,848 cwt.; value, £4,869.

BELGIUM.

WE have long ceased to import live cattle from Belgium, as from other European countries against which our ports are closed, but we still import meat. I am indebted to M. Paul Gilbert, of the Belgian Ministry of Agriculture, for the following figures relating to meat exports to England :—

	1887. Tons.		1888. Tons.		1889. Tons.		1890. Tons.
Fresh meat	3,792	....	2,549	....	7,563	....	2,579
Other meat	..	....	1,191				

The latest returns give the number of cattle in Belgium as 1,383,000, of which 57½ per cent were cows, the slight increase not being commensurate with the increase in the population. The number of sheep is insignificant, showing an enormous falling off in fifteen years, while the pigs numbered only 646,000. In 1884, Belgium imported nearly twice as many cattle as she exported, and in the same year she imported more than twice as much meat, live and dead, as she exported. Her exports to the United Kingdom are as follows :—

	Sheep and Lambs. £		Meat. £		Pork. £
1884	81,237	.....	197,222	.....	52,650
1885	70,123	.....	196,786	.....	74,106
1886	4,701	.....	177,591	.....	62,962
1887	8,439	.....	176,204	.....	71,194
1888	..	.....	194,232	.....	82,131
1889	..	.....	246,406	.....	37,625

Belgium appears in the trade and navigation accounts of 1890 as a small exporter of fresh pork and a large exporter of rabbits (with which, however, we are not dealing) to this country. The pork exports have fallen off considerably, for during the first nine months of the year we received only one quarter the quantity which was sent us in the corresponding period in 1889.

FRANCE.

For some years our restrictions have entirely shut out the continental live meat traffic in which France played so important a part, and which she has so often and so persistently endeavoured to restore. The trade with us in dead meat has never been considerable, but even that has decreased, for at one time it reached 36,000 cwt., whereas in 1889 it was only 24,000 cwt. There is little doubt, however, that should France ever become free from disease among her cattle, and able to show us a clean bill of health, she may succeed in opening up her trade afresh, and land large numbers of cattle upon our shores for feeding, if not for purposes of slaughter. We have not, however, to reckon with her as with countries of later birth, especially as her live stock has not increased with her population, slight as the increase in the latter has been since the great war of twenty years ago. According to the last returns to which we have access, the cattle number 13,333,000; sheep and lambs, 22,750,000; and swine, 6,000,000; against 11,500,000 cattle, 22,500,000 sheep, and 5,500,000 pigs in 1880. The French propose to protect their own meat trade by a new tariff, which the Government has already designed. Sums varying between one franc for small pigs to 38 francs for bullocks are proposed, whereas meat in all forms is subjected to a duty varying from eight francs for meat extract to 28 francs for fresh mutton per 100 kilogrammes (222lbs).

Exports from France to the United Kingdom.

Year.	Oxen, Bulls, Cows, and Calves.		Sheep and Lambs.		Pork—Salt and Fresh.	
	No.	£	No.	£	Cwt.	£
1884.....	..	..	..	..	2,497	6,808
1885.....	..	..	..	..	2,105	5,822
1886.....	4	90	6	308	482	1,248
1887.....	..	..	2	5	732	1,967
1888.....	5	70	1	4	2,771	7,701
1889.....	..	..	..	..	3,462	9,816

		Cwt.		£
Meat unenumerated, salted or fresh (1888).....		6,622	....	26,436
,, ,,	otherwise preserved	3,034	....	14,934
,, ,,	salted or fresh (1889)	6,578	....	26,438
,, ,,	otherwise preserved	4,509	....	22,847

ITALY.

We import no cattle and little meat from Italy. According to the census of 1881, the number of cattle was 4,783,232, sheep 8,596,108, and pigs 1,163,916. The swine industry is not an important one. We have had the advantage of seeing something of the Italian system of feeding and breeding, and have found that the introduction of English blood is duly appreciated. The Italians have opened up a considerable trade with us in butter and cheese, but it will be long before we shall have any reason to expect an invasion from them in the meat department. Cattle are exported into France, Switzerland, and the Tyrol, but the number has considerably diminished since 1878, when 165,149 head were exported. The total exports in 1889 were only 23,561. This figure, however, is almost balanced by the Italian imports of cows from Switzerland and oxen from Austria.

Animals and Meat Exported from Italy to Great Britain.

(Italian Government Returns.)

	1889.	1888.	1887.	1886.	1885.
	No.	No.			
Swine weighing above 20 kilos....	239	158			
Meat salted, smoked, or otherwise preserved.....	Cwt. 716	Cwt. 279	Cwt. 51	Cwt. 58	Cwt. 110

SPAIN AND PORTUGAL.

These two countries occupy a considerable position in the export trade of live cattle to Great Britain, although the number of animals shipped is immensely smaller than it was a few years ago. In 1884, for example, we received 35,000 head, as against 18,000 in 1889, and there was a further falling off last year. Both countries are capable of exporting considerably larger quantities, and in fact do export much larger numbers of animals. In 1887, for instance,

Portugal exported 12,400 animals other than horses and mules, while in the same year Spain exported 51,000 head. Both countries are large importers of the smaller animals, especially swine.

Exports from Portugal to the United Kingdom.			Exports from Spain to the United Kingdom.		
Year.	Oxen and Bulls.		Year.	Oxen and Bulls.	
	No.	£		No.	£
1884.....	17,903	383,872	1884.....	17,482	327,409
1885.....	9,134	193,758	1885.....	12,757	233,354
1886.....	5,888	123,180	1886.....	8,461	146,798
1887.....	6,054	121,020	1887.....	6,653	108,428
1888.....	9,936	189,325	1888.....	11,484	188,614
1889.....	7,026	140,344	1889.....	11,587	190,754

ARGENTINE REPUBLIC.

It will be observed from the import table given below that the growth of the mutton trade between the Argentine Republic and this country has not only been gradual but considerable. The exports of live animals, excluding horses, from Great Britain to the Republic has during the same period been sufficiently large to induce the belief that, considerable as the country is, the stock it possesses must be gradually improving. In 1885 these exports reached £32,000, two years later they had mounted to £105,000, whereas in 1889 they were £82,000 in value.

The imports of frozen mutton into London consisted of 331,245 carcases in 1886, weighing 7,267 tons. In the following year only 242,903 carcases, weighing 5,221 tons, reached the same port. The two following years the falling off was considerable, chiefly owing, no doubt, to the fact that immense cargoes were absorbed by Liverpool, Glasgow, Cardiff, and Newport. The falling off of the shipments to London continued during the first half of last year, although the average receipts at Liverpool were not quite so heavy. The average weight of each carcase sent to London was, in

	lbs.
1886	49
1887	52
1888	50
1889	45
Average weight	49

or a pound more than the average weight of the carcases sent out from some of the other South American freezing houses. At the present time the quality of River Plate meat is not what it might be, the sheep produced being principally of the Spanish Merino or

the Rambouillet breed, which is justly celebrated for its wool but certainly not for its mutton. Crossed with English rams of the Hampshire and Oxford type, the size and quality would be materially increased. The country is so large, and its capacity to produce meat so considerable, that the Republic will probably become a keener competitor with our own colonies, and at a time when the production in the United States is no more than sufficient to provide for the requirements of its people.

IMPORTS INTO GREAT BRITAIN, FROM 1884 TO 1890.

YEAR.	Meat unenumerated, preserved otherwise than by salting.		Mutton.	
	Cwt.	£	Cwt.	£
1884	....	16,929	....	98,136
1885	10,298	35,074	112,223	289,625
1886	19,885	46,396	190,409	370,363
1887	10,787	18,766	251,273	447,597
1888	8,501	19,040	345,392	625,548
1889	9,749	21,143	395,303	750,310
1890 (first 9 months) ..	....	....	302,523	577,085

There are large factories in La Plata for the preparation of frozen meat, and, as is essential, they are built upon the banks of a river, so that the meat can be conveyed on board the steamer without being exposed to the rays of the sun. Hundreds of sheep are brought daily to the adjacent meadows, where they are allowed to rest for a few hours for killing in good condition. In a factory described by a correspondent of the *Journal de Genève* the animals were slaughtered and dressed so rapidly that twenty men easily disposed of 1,000 animals in a single day. The carcases are hung up to dry for several hours, and then taken to the first freezing chamber, those which appear unsuitable being set aside for sale in the neighbourhood. The temperature of the first chamber is 10 degrees Fahrenheit, so that the carcases may be gradually penetrated by the cold air. When this is effected they are removed to a second chamber, where the temperature is as low as 30 degrees below zero. They remain here for three days, until completely congealed and as hard as wood. They are then covered with coarse muslin bags to protect them from dirt, and transferred to the storehouse, which is kept at the same temperature as the second chamber. As many as 300,000 sheep were disposed of at the St. Nicholas manufactory last year, at an average weight per carcase of 48lbs., and a value of 4s. Thus, if the meat is sold at 4d. per lb. there is a margin for profit even after payment of freight (about 1d. per lb.) and other incidental expenses.

RUSSIA.

Russia in Europe, with a population of 81,000,000 (1885), owned 23,500,000 cattle, 46,750,000 sheep and lambs, and 9,333,000 pigs, at the date of the last return. She exports no meat worthy of mention, and her exports of live animals do not reach £1,000,000 in value, although they have in some past years exceeded this amount by one-half. The trade, however, between Russia and this country has been extremely small, and is scarcely worthy of consideration.

Imports of Beef to British Possessions.

	Cwt.		Value.
1884.....	31,707	....	£72,449
1885.....	10,398	....	21,738
1886.....	5,754	....	12,060
1887.....	2,782	....	4,016
1888.....	4,717	....	7,685
1890.....	....	....	....

VENEZUELA.

Venezuela is a possible future competitor in our markets. In 1878 and 1889 respectively she exported the following numbers of animals :—

	1878.		1889.
Cattle.....	2,158,267	....	8,466,291
Sheep and Goats..	2,309,418	....	5,727,817
Swine.....	669,112	....	1,929,693

So considerable an increase is noteworthy, although the Government returns do not show that we have yet received anything in the form of meat from Venezuela.

CHANNEL ISLANDS.

From the Channel Islands we receive more than 2,000 head of cattle yearly, but the animals are imported solely for the dairy or for breeding purposes, and, although the majority ultimately find their way to the butcher, the sum paid per head by no means represents even an approximate value from the point of view of meat production. The value of live Channel Island cattle is considerably less than formerly, but even now it would be unwise to estimate the imports in the form of meat at more than one-half the cost per head. The imports fluctuate between £36,000 and £51,000 in value, but we

export to Jersey sheep and lambs of the value of £6,500, and provisions, including meat, which is unfortunately not separately declared, valued at £36,000.

IMPORTS FROM CHANNEL ISLANDS.

YEAR.	Oxen and Bulls.		Cows and Calves.	
	No.	£	No.	£
1884	131	4,445	2,517	58,063
1885	130	4,075	1,662	32,996
1886	133	4,004	1,697	32,117
1887	135	4,635	2,056	37,265
1888	130	3,920	2,127	39,252
1889	154	4,481	2,508	46,686

OUR INTERNATIONAL TRADE.

In order that the trade between this and other countries under each heading may be thoroughly understood, the imports and exports of each variety of live stock and dead meat are next given.

IMPORTS INTO THE UNITED KINGDOM, YEAR ENDED SEPTEMBER 30TH, 1890.

OXEN AND BULLS.

			Value.
From Denmark	24,446	....	£282,400
,, Germany	..	....	..
,, Spain	9,280	....	153,178
,, Canada	102,887	....	1,702,337
,, United States	382,035	....	7,347,266
,, Other countries	16,696	....	258,460
Total	535,344	....	£9,743,641

COWS.

			Value.
From Denmark	39,091	....	£428,586
,, Sweden	2,171	....	24,323
,, Germany	..	....	..
,, Canada	5,595	....	86,321
,, United States	537	....	8,928
,, Other countries	6,236	....	100,252
Total	53,630	....	£648,410

THE SOURCES OF OUR MEAT SUPPLY.

Calves.

			Value.
From Denmark	24,454	....	£87,847
,, Holland	40,134	....	172,602
,, Canada	583	....	1,238
,, United States	37	....	118
,, Other countries	776	....	3,323
Total	65,984	....	£265,128

Sheep and Lambs.

			Value.
From Denmark	142,698	....	£207,862
,, Germany	..	....	..
,, Holland	186,152	....	455,509
,, Canada	51,553	....	100,997
,, United States	3,904	....	7,900
,, Other countries	67,432	....	99,466
Total	451,739	....	£871,734

Swine.

			Value.
From Denmark	3,789	....	£15,147
,, Holland	466	....	1,363
,, Canada	..	....	..
,, United States	1,086	....	4,054
,, Other countries	4,203	....	14,022
Total	9,544	....	£34,586

Bacon.

	Cwt.		Value.
From Denmark	392,618	....	£1,129,346
,, Germany	1,443	....	3,601
,, United States	2,900,026	....	4,956,313
,, Other countries	503,467	....	1,095,120
Total	3,797,554	....	£7,184,380

Beef.—Salted.

	Cwt.		Value.
From United States	262,882	....	£360,128
,, Other countries	7,870	....	14,275
Total	270,753	....	£374,403

Beef.—Fresh.

	Cwt.		Value.
From United States	1,627,198	....	£3,491,761
,, Other countries	141,624	....	262,397
Total	1,768,822	....	£3,754,158

THE SOURCES OF OUR MEAT SUPPLY.

HAMS.

	Cwt.		Value.
From United States	1,054,797	....	£2,514,405
,, Other countries	112,178	....	286,922
Total	1,166,975	....	£2,801,327

MUTTON.—FRESH.

	Cwt.		Value.
From Holland	71,549	....	£163,559
,, Australasia	866,352	....	1,780,041
,, Argentine Republic..	391,537	....	742,583
,, Other countries	228,952	....	580,443
Total	1,558,390	....	£3,266,626

PORK.—SALTED (NOT HAMS).

	Cwt.		Value.
From United States	187,703	....	£258,918
,, Other countries	57,721	....	69,242
Total	245,424	....	£328,160

PORK.—FRESH.

	Cwt.		Value.
From Holland	25,138	....	£60,996
,, Belgium.....	5,580	....	14,701
,, United States	60	....	90
,, Other countries	11,171	....	27,861
Total	41,949	....	£103,648

MEAT UNENUMERATED.—SALTED OR FRESH.

	Cwt.		Value.
From United States	17,827	....	£35,001
,, Other countries	71,886	....	161,717
Total	89,713	....	£196,718

MEAT UNENUMERATED.—PRESERVED OTHERWISE THAN BY SALTING.

	Cwt.		Value.
———	725,961	....	£1,943,292

EXPORTS, 1889.

Bulls, Oxen, Cows, and Calves.

	No.		Value.
To Sweden and Norway....	145	....	£4,089
,, United States of America: Atlantic	83	....	2,798
,, Chili	46	....	4,305
,, Uruguay	80	....	4,883
,, Argentine Republic	723	....	50,980
,, Other foreign countries..	165	....	7,280
Total to foreign countries.	1,242	....	£74,335
	No.		Value.
To Channel Islands	262	....	£4,765
,, Australasia	17	....	2,240
,, British North America..	144	....	2,589
,, Other British possessions	45	....	1,835
	468	....	11,429
Total	1,710	....	£85,764

Sheep and Lambs.

	No.		Value.
To Germany	777	....	£6,345
,, United States of America: Atlantic	1,108	....	5,476
,, Argentine Republic	2,007	....	29,869
,, Other foreign countries ..	730	....	4,757
Total to foreign countries.	4,622	....	£46,447
	No.		Value.
To Channel Islands	2,630	....	£6,496
,, British North America ..	589	....	1,757
,, Other British possessions.	176	....	2,804
,, Total to British possessions	3,395	....	11,057
Total.....	8,017	....	£57,504

Swine.

	No.		Value.
To Germany	3,030	....	£15,063
,, Other foreign countries ..	352	....	1,700
Total to foreign countries.	3,382	....	16,763
To British possessions	141	....	444
Total.....	3,523	....	£17,207

BACON.

	Cwt.		Value.
———	377,085	....	£571,703

MEAT UNENUMERATED.—PRESERVED OTHERWISE THAN BY SALTING.

	Cwt.		Value.
———	50,362	....	£126,506

THE EFFECT OF DISEASE UPON THE RETURNS.

THE Minister of Agriculture, who has prohibited the admission of cattle from Schleswig-Holstein and Holland, and refused permission to the Americans to send store cattle into this country on account of the danger to the stock of our farmers who are the producers of the bulk of the food of our people, has shown that at the same time that we have been deprived of the cattle sent by the two former countries our home stock has very largely increased. This is a most material feature of the situation, for without a very large increase in this stock we could not possibly provide for our population the amount of animal food which they have been accustomed to consume. Remarking upon this subject at the Health Exhibition, in 1884, Major Craigie estimated the weight of home-grown meat at 1,307,000 tons, and of imported meat at 301,000 tons, according to the official returns; while basing his opinion upon the official weights of live foreign animals, he placed the supply from this source at 173,000 tons. The consumption for the year, therefore, reached 1,781,000 tons. Of the home supply, 670,000 tons were estimated to consist of beef or veal, the latter meat consisting of some 4 per cent. The quantity of mutton and lamb consumed was placed at 350,000 tons, of which 12 per cent was estimated to be lamb; while the pig meat of home production consumed was placed at 280,000 tons. In order to show how cattle disease may affect the interests of our people, Major Craigie pointed out that the increase in live animals in 1883 over 1882 was calculated to produce an increase of 27,385 tons of meat. The increase in the population, however, estimating the consumption per head at 100lbs., would only require 17,857 tons. The value of the difference between these two quantities, £762,240, is the sum which should have been disposable for the benefit of the consumer. There was, however, an increase in the importation of live animals and dead meat of the value of £6,360,440, while the average price of beef was 2½d., and of mutton 7¾d. per 8lbs. more than in 1882. How enormously, therefore, must the public have paid for the epidemic which raged in the form of foot-and-mouth disease in that year. At the same conference, Mr. W. J. Harris, M.P., expressed the opinion that before many years meat would be rather

cheaper, and that the British farmer would be able to compete with the farmers of other countries if his burdens were equalised, and he had perfect protection from the importation of contagious disease.

There are many reasons why the second of Mr. Harris's opinions may come to pass. Among them are two which found prominent expression in an admirable article in the *Quarterly Review* in 1889, by Mr. W. E. Bear, which has been reprinted for the Cobden Club. Mr. Bear justly said that "it seems that those who contrast the recent bad times for stockkeepers with the supposed good times previous to 1884 exaggerate alike the gains of the earlier period and the losses of the later one. It is to be borne in mind that rent and wages, as well as the prices of purchased feeding stuffs, have fallen since the end of 1883, while the comparatively new practice of making cattle and sheep fit for the butcher at an early age has been getting more and more common." With regard to the latter point, which has been still more developed since Mr. Bear wrote, it is sufficient to quote the weights of the leading young stock shown at the Birmingham shows in the years 1888-9. At the 1888 show, the first prize Hereford steer, aged one year and nine months, scaled 14cwt. 1qr. 3lbs. The figures applying to the various breeds will, however, be more convenient for comparison if tabulated.

THE EARLY MATURING OF STOCK.

BIRMINGHAM SHOW, 1888.

	Age. Yrs.	Mon.		Weight. Cwt.	qrs.	lbs.
Hereford Steer (1st)	1	9	....	14	1	3
Shorthorn Steer (1st)	1	11	....	14	1	19
Polled Scot (1st)	2	8	....	17	1	17
,,	1	7	....	11	1	21
Crossbred (1st)	2	7	....	17	0	12
,, (1st)	1	10	....	14	3	9

At Smithfield, in the same year, the first prize Hereford steer (under two years) had gained 2·2lbs. live weight per day since birth, the first prize shorthorn steer of similar age had gained a similar weight, while the first prize crossbred steer gained no less than 2·5lbs. per day. At Smithfield, the finest sheep weighed as follows, all being first prize animals :—

PENS OF THREE WETHERS.

	Age. Yrs.	Mon.		Weight. Cwt.	qrs.	lbs.
Leicesters	1	8	....	7	2	6
Cotswolds	1	9	....	8	2	4
Lincolns	1	9	....	9	0	26
Hampshires	1	10	....	7	2	0
Oxfords	1	8¾	....	8	1	3

LAMBS.

	Age. Months.		Weight. Cwt. qrs. lbs.
Cotswolds	9	....	5 2 14
Leicesters	8	....	4 1 10
Hampshires	10½	....	5 1 19
Suffolks	10	....	5 0 26
Oxfords	9½	....	5 1 8
Kentish	8½	....	5 0 2
Crossbred	10	....	5 2 0

These figures speak for themselves; but it should be remarked, with regard to the prize cattle at Smithfield, that Mr. G. T. Turner, of the *Live Stock Journal*, traced most of these animals to the butchers who purchased them and prepared reports upon the quality of the meat, the carcase weight, and the daily gain since birth. In almost every instance the butcher's report was highly favourable, so much so that objections formerly made against high feeding for early maturity cannot be entertained, either from the point of view of over fatness or coarseness. The following instances will show how prize cattle weigh when slaughtered:—

	Age.	Carcase Weight.	Daily Gain.	Percentage of Carcase to Live Weight.
Devons:	Yrs. Mon.	lbs.	lbs.	lbs.
Steer	2 8¾	1,080	1·43	68·70
Champion Steer	2 11¾	1,160	1·57	67·89
Herefords:				
The Queen's Steer	1 11	900	2·04	63·53
Steer	1 9¾	1,048	2·34	66·25
Steer	2 10	1,056	1·54	66·08
Shorthorns:				
Steer	1 11½	1,136	2·25	70·96
Steer	2 6½	1,128	1·81	67·14
Sussex:				
Steer	2 5¾	1,208	2·17	65·44
Steer	2 11¾	1,422	1·83	71·67
Welsh Ox	2 11	944	1·40	63·36
Scotch Poll	1 8	880	2·21	65·67
Galloway	2 5¾	960	1·57	67·57
Crossbred	1 7½	840	2·10	67·52

In all, Mr. Turner made inquiries and furnished valuable data with respect to 64 animals. The mean average carcase weight proved to be 66·12 per cent of the live weight, or divided into ages as follows:—

		Average.
17	Steers under 2 years old	65·57
20	Steers between 2 and 3 years	67·25
12	Oxen between 3 and 4 years	65·20
2	Oxen over 4 years	66·90
10	Heifers under 4 years	67·95
3	Cows under 4 years	63·85
64		66·12

The highest recorded percentage of carcase weight to live weight at the Great American Show at Chicago is 70, but at Smithfield this has been exceeded in several instances. The late Mr. Curry's crossbred steer, which we had the opportunity of inspecting when it was feeding at home, reached 74·59, and Sir John Swinburne's crossbred ox reached 73·47. These figures are a long way on for the percentages of fat pigs, and yet according to the butchers' reports the kidney fat, which is of great value at Christmas, although of little value at other seasons, was deficient in many instances, while the hides, often the cause of complaint on the part of the purchaser, commence to show a value approaching that of the dressed carcase when they exceed 100lbs. At Birmingham, in the following year, Her Majesty's prize Hereford shorthorn, aged 2 years and 10 months, weighed 17cwt. 2qrs. 14lbs. The prize shorthorn steer under 3 years weighed 18cwt. 2qrs. 12lbs., and the first prize steer under 2 years scaled 13cwt. 1qr. 16lbs. These weights are, however, beaten by the crossbred cattle, for the steer under 3 years (2 years and 10 months) weighed 18cwt. 2qrs., while the steer under 2 years (19 months) actually reached the extraordinary weight of 14cwt. 17lbs. At Smithfield, the highest percentage of carcase weight was 76·52 in a shorthorn ox, but 70·0 was exceeded by Devon, Sussex, and crossbred cattle. The highest live weight in young cattle under 2 years was 1,757lbs. in a polled Angus steer of 23½ months. After the production of such cattle, how is it possible to fail to notice the vast strides which have been made by the farmer in meat production? If it is thus possible to place huge cattle into the meat market at from 20 to 24 months old, instead of 3 to 4 years as was formerly the case, it is clear that we as a people are able to produce far more meat than we have done, and to rely upon our own resources to a much greater extent provided we have the assistance of the Governments of the day in maintaining our stock in a healthy condition.

Let us now glance at Chicago weights, the figures being taken from the details of the show of 1887. The highest weights of young cattle were :—

	Age. Days.	Weight. lbs.	Daily gain. lbs.
Shorthorn	663	1,465	2·21
,, ...	676	1,670	2·47
Polled Angus.....	674	1,550	2·23
Hereford.....	629	1,410	2·24
Shorthorn	601	1,365	2·20

In order to afford some idea of the weights of the quarters and other parts of the slaughtered animals, the following figures are extracted :—

Breed.	Age.	Live weight.	Gain per day from birth.	Per cent dressed.	Right fore-quarter.	Right hind-quarter.	Tallow.	Hide.	Liver.	Heart.	Blood.
	Days.	lbs.	lbs.		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Galloway	526	900	1·71	61	139	135	52	70	18	3	30
GradeGalloway	647	1,335	2·11	64	223	208	102	75	12	4	39
Galloway	763	1,330	1·74	63	234	200	86	81	12	5	40
Grade Hereford	674	1,090	1·61	61	178	157	57	80	12	4	31
,, Angus...	629	1,230	1·95	66	208	193	91	87	10	4	27
,, Hereford.	551	1,280	2·32	65	214	199	54	93	11	3	29
Sussex	1,068	1,350	1·26	64	219	209	90	83	12	4	35
Shorthorn.....	791	1,160	1·46	65	185	190	103	62	13	4	28
Hereford.....	1,043	1,810	1·73	66	314	279	97	128	13	5	41

The head of the animal which showed the highest daily gain weighed 28lbs., the feet 18½lbs., the intestines 32lbs., the paunch 116lbs., and the tongue and lungs 7lbs. each. In all cases but one the left forequarters weighed heavier than the right, while, although not to the same extent, the left hindquarters were heavier in each instance. The heads varied between 21lbs. and 46lbs. for the first and last in the list respectively, the feet 14lbs. and 20lbs., the intestines 24lbs. and 40lbs., the paunch 71lbs. and 134lbs., and the tongue and lungs which weighed alike from 6lbs. to 10½lbs.

RENTS.

With regard to the other points which have influenced the production of home-grown meat at a lower cost, it is hardly necessary to adduce any evidence to prove that rents are much lower than they were ten years ago. The large landowners, who, in our experience, are as a body the best landlords, have made material reductions, and in many instances very liberal ones. They have also laid out money in the improvement of old and the erection of new buildings in order to encourage, as far as possible, the production of stock. In Yorkshire we have inspected more than a hundred farms situated in the various districts of the county, and in

almost every instance have found the tenants provided with good buildings, and satisfied with the rents with which they are charged. In other counties, especially in the Midlands, similar conditions exist. Some of the smaller or more needy landlords, however, still maintain rents which are out of all proportion to the value of the land they own, and from which their tenants cannot yet escape, while their buildings are neglected. In such cases the tenants are handicapped unfairly, and their capital diminished or locked up, so that their production of stock is not what it ought to be.

WAGES.

Nor can the farmer complain of the cost of labour, however much he may complain—and we fear justly, in some parts of England at least—of its quality. It is true that as compared with thirty years ago the wages paid to-day are high, but the day labourer receives in some districts as little as 10s. and 11s. per week, in addition to his cottage, whereas in the best districts he seldom obtains more than 12s. In the northern counties the men are often fed and lodged upon the farm, a plan which results in the performance of better and more regular work, especially among stock; but in those districts which are contiguous to mining and industrial centres, wages are higher than in other parts of the country, although the farmer obtains his *quid pro quo* in the advantages he receives from the facility with which he can sell direct to the consumer. Conscientious labourers may be well paid as stock attendants without adding to the difficulties of meat production upon the farm.

VALUE OF FEEDING STUFFS.

Imported foods, such as maize, linseed cake, cotton cake, milling offals, and linseed, have been considerably cheaper than they were years ago during the so-called good times. Let us for a moment glance at the imports of foreign and colonial grown feeding stuffs.

Imports of Imported Stock Foods.

	Oil Cake. Tons.	Cotton Seed. Tons.	Flax Seed. Qrs.	Maize. Cwt.
1863....	88,566 ..	62,159 ..	1,104,578 ..	12,736,594
1870....	158,453 ..	120,304 ..	1,490,695 ..	16,756,783
1881....	221,100 ..	232,199 ..	1,823,808 ..	33,480,846
1889....	255,918 ..	277,394 ..	2,269,495 ..	36,192,325

VALUES OF IMPORTED STOCK FOODS.

	Oil Cake. £	Cotton Seed. £	Flax Seed. £	Maize. £
1863....	676,165	503,014	3,372,432	4,042,908
1870....	1,417,100	1,091,132	4,016,016	5,790,550
1881....	1,764,492	1,783,109	4,380,620	10,408,302
1889....	1,701,106	1,906,220	4,570,203	8,580,322

A few calculations upon the basis of the above figures show the average price of each class of food to have been—

AVERAGE PRICES OF STOCK FOODS IN £, WITH DECIMALS.

	1863. £	1870. £	1881. £	1889. £
Oil Cake	7·6	8·9	7·98	6·64
Cotton Seed.....	8·09	9·06	7·6	6·8
Flax Seed	3·05	2·69	2·4	2·01
Maize .....(shillings)	6·34	6·91	6·21	4·7

It will be observed that the fall in the prices of each of the above articles of food, which form the staple of the meat-producing foods imported into this country, has been enormous. For example, if a farmer were to purchase a ton each of oil cake, cotton seed, flax seed, and maize, at 1863 prices, he would pay £38. 16s. 8d., as against £29. 4s., the cost in 1889. Thus, the farmer purchasing in the latter year effected a saving, in making such a purchase, of £9. 12s. 8d., or 25 per cent. There is, however, no positive assurance that such prices as were common in 1889 will be maintained. Setting aside the temporary rise which has been occasioned by the shortness of the maize crop in America, there are considerations with which we have to reckon. Dr. Peter Collier, Director of the Agricultural Experiment Station of New York State, recently made some very weighty suggestions to the American farmers in an address upon "The Future of American Agriculture," a copy of which he has sent me. Dr. Collier believes that "we are upon the eve of what I believe will prove the golden age of our agriculture." He shows that, in consequence of the great increase in the populations in towns, the consumers are increasing far more rapidly than the producers; that the number of farms nearly doubled between 1860 and 1880, during which period the average acreage of the farms diminished 33 per cent; that the proportion of agricultural products exported is only about 5 per cent, excluding tobacco and cotton; and that during the last seven years the average increase of crops was only 35 per cent, while the average increase in acreage was 45 per cent, although in the previous seven years the average increase in the

crops was practically the same as the increase in acreage. Add to these points the facts that the population of the United States is increasing at the rate of 3 per cent per annum, that the "average crop-producing capacity of the soil is diminishing," and that "everything points to the fact that the arable land is largely occupied," and we arrive at a tolerably clear idea of the possibility of America requiring all she produces. Dr. Collier thinks it is not hazardous to predict that "within five years, and perhaps even sooner, the home demand may fully equal the supply of our agricultural products." In view of these opinions, he recommends that there should be a diminution of the production of those crops which are so largely exported—maize, wheat, meat, and cotton, and an increase in the production of the articles which are imported, such as sugar, molasses, wool, barley, fibres, and horses.

Whether the opinion expressed by Dr. Collier is too optimist or not, there can be no doubt that he is not far off the scent. It is within the bounds of belief, as it is of expectation, that the Americans will not long continue to send us either meat, wheat, or maize at the prices to which we have become somewhat accustomed. At this moment it is impossible to discern which country would be in a position to take up the beef trade on the scale in which it exists should America at some future day allow it to decline. For the present we need have no apprehension, as we shall be supplied on something like present conditions for a few years at least. There is not, however, the same certainty with regard to the grain trade, as the present year's harvest has shown us, and as an advance in maize and wheat means an advance in other feeding stuffs, so is the cost of meat production in this country increased, to the disadvantage of the home producer.

THE SALE OF IMPORTED MEAT.

From time to time great complaints have been made with regard to the sale of foreign and colonial meat as British. The objections have at last assumed a tangible form, and at the November meeting of the Central Chamber of Agriculture a motion to the effect "that it is desirable to label all imported meat when sold in this country" was unanimously carried. It is possible that imported meat is frequently sold at high prices when it is comparatively good in quality. We have experienced the difficulty, in common with many others, of discriminating between American and English beef, and appreciate the difficulties with which the question is hedged. The butchers are in a position to keep down the prices of imported meat and to sell it at British prices. Under such conditions they can make exorbitant profits, but we are unable to see how large profits can be

made out of prime home-grown mutton when we remember the prices of sheep. On one occasion we had the opportunity of applying a test, as far as was possible, by cutting up a single sheep, which to our knowledge cost 4s. 10d. per stone of 8lbs. The carcase weighed 6st. 3lbs., and cut up as follows, being sold at the prices given, which were those daily charged for the particular joints by the butcher to whom we were indebted for this assistance :—

	lbs.	oz.	d.	£	s.	d.
Legs	13	14	at 9	0	10	5
Loins	9	6	„ 9½	0	7	5½
Shoulders	11	2	„ 8½	0	7	10½
Breasts	6	4	„ 5	0	2	7
Necks	11	2	„ 7½	0	6	11½
				£1	15	3½
Cost of the carcase				1	10	9½
Gross profit				0	4	6

SWINE DISEASE AND DROPPED MEAT.

In connection with the subject of disease in live stock, we cannot refrain from alluding to the anomalous position of the law as it exists for the protection of swine. Every county appears to maintain a distinct system and to issue different regulations, some of which are severe in the extreme, others sufficiently loose to be mere vehicles for the dissemination of swine fever far and wide. Until these rules are uniform we need hardly expect to become free from the disease. The root of the evil, however, is in the constitution of the local authorities. So long as men having no interest in taking action, and less knowledge of the subject than a farm labourer, are included in committees, so long will our troubles continue.

One other matter deserves mention. Who, we ask, consumes the "dropped" meat which is so freely sent from country to town—carcases of animals whose throats have been cut while in the extremity of death, but which, having freely bled, are at once dressed and packed off to the "trade"? There are market inspectors who doubtless do their duty to the best of their ability, and who actually do condemn large quantities of meat. We admit the difficulty of discrimination as of detection, but it cannot be denied that there is danger in pork which in life has been attacked with swine fever, and in carcases of all kinds which have been slaughtered under such conditions as we have suggested.

THE SOURCES OF OUR MEAT SUPPLY.

WHAT WE IMPORT.

IMPORTS OF FOREIGN AND COLONIAL LIVE AND DEAD MEAT.
Total Quantities, 1886 to 1890.

	1886.	1887.	1888.	1889.	1890. Ending Sept. 30.
Oxen and Bulls.....	319,622	219,222	287,266	441,811	535,344
Cows		38,766	49,724	60,366	53,630
Calves		37,973	40,098	53,044	65,984
Sheep and Lambs	1,038,965	971,403	956,210	678,058	451,739
Swine.....	21,351	21,965	24,509	25,324	9,544
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Bacon	3,256,000	3,001,000	2,854,000	3,498,000	3,797,000
Beef, salt	195,000	218,000	226,000	265,000	270,000
„ fresh	807,000	658,000	837,000	1,380,000	1,768,000
Hams.....	943,000	921,000	728,000	977,000	1,166,000
Meat (salt or fresh) not enumerated....	42,000	47,000	56,000	91,000	87,000
Meat preserved otherwise than by salting.	430,000	519,000	542,000	643,000	725,000
Mutton, fresh	652,000	785,000	989,000	1,227,000	1,558,000
Pork	372,000	428,000	488,000	386,000	287,000
Total cwt., Dead Meat	6,697,000	6,577,000	6,720,000	8,467,000	9,663,000

IMPORTS OF FOREIGN AND COLONIAL LIVE AND DEAD MEAT.
Total Values, 1886 to 1890. Thousands ("000") omitted.

	1886.	1887.	1888.	1889.	1890. Ending Sept. 30.
	£	£	£	£	£
Oxen and Bulls.....	5,068	3,802	5,130	8,133	9,743
Cows		489	634	732	648
Calves		147	146	203	265
Sheep and Lambs	2,010	1,645	1,740	1,195	871
Swine.....	63	64	74	95	34
Total	7,141	6,147	7,724	10,358	11,561
Bacon	6,143	6,330	6,393	7,287	7,184
Beef, salt	326	334	349	371	374
„ fresh	1,862	1,481	1,921	3,015	3,754
Hams.....	2,237	2,390	1,924	2,501	2,801
Meat unenumerated, salt or fresh	113	116	120	197	196
Ditto preserved, but not by salt.....	1,167	1,350	1,377	1,632	1,943
Mutton, fresh	1,405	1,577	1,941	2,579	3,266
Pork, salt or fresh	630	773	917	676	431
Total, Dead Meat ..	13,883	14,351	14,942	18,258	19,949
Grand total	21,024	20,498	22,666	28,616	31,516

THE SOURCES OF OUR MEAT SUPPLY.

EXPORTS.—THE PRODUCE OF THE UNITED KINGDOM.

Articles.	1885.	1886.	1887.	1888.	1889.
Beef, Pork, Bacon, and Hams .....Quantity, cwt.	61,662	82,690	73,350	70,760	88,664
Ditto .....Value, £	248,353	285,101	289,361	283,329	363,241

EXPORTS.—COLONIAL AND FOREIGN PRODUCE.

Articles.	1885.	1886.	1887.	1888.	1889.
Bacon and Hams..Quan. cwt.	339,073	294,406	188,717	166,479	277,255
Ditto.....Value £	657,858	498,210	356,856	331,915	469,723
Meat preserved otherwise than by salting..Quan.cwt.	39,771	29,680	70,832	35,503	40,071
Ditto.....Value £	125,137	93,771	184,924	96,470	98,360
Total value .....£	782,995	591,981	541,780	428,385	568,083

TABLE SHOWING THE NUMBER OF LIVE STOCK IN GREAT BRITAIN IN THE YEARS 1886 TO 1890 INCLUSIVE.

YEAR.	Cattle.	Sheep.	Pigs.
	No.	No.	No.
1886.....	6,646,683	25,520,718	2,221,475
1887.....	6,441,268	25,958,768	2,299,323
1888.....	6,129,375	25,257,149	2,404,344
1889.....	6,139,555	25,632,000	2,510,803
1890.....	6,508,632	27,272,459	2,773,609

	Per cent.		Per cent.		Per cent.
Increase in 1890 over 1889 ..	6	....	6·4	....	10·5
„ „ 1888 ..	6·2	....	8·0	....	15·4

The increase in the number of cattle is considerable, but it is probably in a large measure owing to the great expansion of the dairy movement. The increase in cows and heifers alone is at the rate of 4·3 per cent, but young stock under two years old have increased at the rate of 12·4 per cent. It would be difficult to believe that these young animals were so largely produced for the butcher in the face of the foreign meat trade, and the increasing difficulty of making beef production pay. The demand for cow stock, which developed two years ago, has been maintained up to the present time; and in face of the reduction in the number of stock over two years old, but not in milk or in calf, it is still likely to be maintained during the coming spring. When the increased

numbers of young stock (279,466 more than in 1889) come in, however, it is quite possible that prices will fall, but even this is by no means certain. In spite of the great increase in the number of sheep and lambs, the price of mutton in the wool has been maintained. The development of the flocks of our country is as gratifying as it is consistent, for lambs have increased to a larger extent than sheep if their number is taken into consideration. There are still thousands of farms where sheep are kept in diminished numbers or not kept at all, but upon which changes will be wrought when a revival in prices of agricultural produce in general occurs, as many confidently believe it will. Pigs, never kept in Great Britain so largely as they ought to be, especially on the farm, while not half numerous enough, yet show a very large increase indeed in spite of the increase in the pig meat trade and its development in Denmark.

OUR MEAT CONSUMPTION.

Let us next ascertain what quantity of meat would be provided from the flocks and herds represented by the above figures. Various systems of estimating the number of animals slaughtered, together with their average weight, have been adopted by Sir Henry Thompson, Sir James Caird, Mr. John Algernon Clarke, Mr. Bear, and Major Craigie, now a member of the Board of Agriculture. We prefer to base our estimate chiefly upon the system of Major Craigie, who has dealt so remarkably with the statistics of agriculture, but increasing the percentage of beasts slaughtered from 25 per cent to 30 per cent, believing that more rapid feeding and early maturing has resulted in effecting such a change as will justify this action, but still adopting 600lbs. as the mean weight. With sheep, the number slaughtered is estimated at 40 per cent of the whole, and each animal is taken as weighing 70lbs. For pigs, one-sixth more than the number enumerated are supposed to be annually killed for food, the weight of each animal being assumed to be 112lbs. Thus we arrive at the following figures :—

Meat Produce of Great Britain (1890).

	Animals.	Slaughtered.	Weight.	
	No.	No.	Tons.	Lbs.
Cattle.....	6,508,632	1,952,580	522,967	1,171,446,080
Sheep.....	27,272,459	10,908,980	340,905	763,488,600
Pigs	2,773,609	3,235,877	161,793	362,418,224
Total	36,554,700	16,097,437	1,025,665	2,297,352,904

The above figures approximately give 80·35 tons of beef per 1,000 head of cattle enumerated, and, as Mr. W. Little remarks in his paper on "Produce and Prices," 12½ tons of mutton per 1,000 sheep, while the weight per 1,000 pigs appears to be exactly 58·3 tons. We thus obtain the gross amount of home-grown butcher's meat available as food as far as the Government returns have enabled us to do so. The Irish returns not being available up to the date of going to press, we estimate them upon the basis of the past two years, thousands ("000") omitted :—

	British. lbs.		Irish. lbs.		Lbs. per head of the population.
Beef	1,171,446	.....	737,934	.....	50·24
Mutton	763,488	.....	106,400	.....	22·89
Pork	362,418	.....	180,216	.....	14·27
Total lbs. home-grown meat consumed				.....	87·40

Our estimate of home-grown meat upon the basis of the above figures comes out at 1,483,054 tons, against 1,307,000 estimated by Major Craigie in 1884. The estimate of that year was based upon the returns of 1883, but as compared with that year we have now an increase in Great Britain of 500,000 cattle, 2,500,000 sheep, and 150,000 pigs at least.

We have not thought it necessary in an inquiry of this kind to deduct from the number of cattle slaughtered those which have been shipped abroad for breeding purposes. They include, as regards the past year, 1,710 cattle, 8,017 sheep, and 3,523 pigs. The estimate has been based upon the supposition that these animals were non-existent.

We now come to the imports of meat, live and dead, particulars of which have already appeared in detail.

IMPORTS YEAR ENDED SEPTEMBER 30TH, 1890.

	No.		Tons.
Cattle	654,958	....	160,815
Sheep	451,739	....	14,116
Pigs	9,544	....	477
			175,408

	Tons.	
Beef, fresh	88,441	
,, salt	13,537	
Mutton	77,919	
Pork, fresh and salt	14,368	
Bacon and Hams	248,226	
Unenumerated meats	40,783	
		483,274
Total		658,682

According to Major Craigie, who wrote an important paper in the Journal of the Royal Agricultural Society in 1887, the quantity of live and dead meat reaching this country in 1885–6 averaged 460,400 tons, the percentage of dead meat to total imports being 73, and the rate per head of imported meat 28·2lbs.

	Meat from imported live animals. Tons.	Dead meat imported. Tons.	Total.	Per cent of dead meat to total imports.
Average of 1885–6.....	125,500	334,900	460,400	73
Year ended Sept. 30, 1890..	175,408	483,274	658,682	73

It is a remarkable fact that the percentage of dead meat to the total meat imported is the same now as when Major Craigie wrote. The immense increase in the exports since 1885–6 will be noticed, but a glance at the returns will show that it has been very real in all departments but pork. In the nine months ended 30th September last there is an increase over the corresponding period in 1888 of over 2,000,000 cwt. of dead meat and 190,000 head of cattle, although the decrease in sheep and pigs is considerable.

Again, Major Craigie showed that in 1867–9 the average quantity of foreign meat consumed per head of our population was 8½lbs. This was increased to 28·2lbs. in 1885–6; now it has further increased to 37·3lbs., so that as nearly as possible one person in every three is entirely fed upon food produced in other countries than our own, if we may include under such a term those colonies the inhabitants of which are "one of us" in blood, and we believe in aspiration and patriotism.

Now let us deal with the entire meat supply.

TOTAL AVAILABLE MEAT SUPPLY, YEAR ENDED SEPT. 30TH, 1890.

Thousands ("000") omitted.

	United Kingdom. lbs.	Imported. lbs.	Per head imported. lbs.	Per head total supply. lbs.
Beef	1,909,380	588,656	15·4	65.7
Mutton	869,888	206,158	5·4	28·3
Pig meat	542,634	545,977	14·3	28·6
Meats unenumerated..	....	85,713	2·2	2·2
	3,321,902	1,426,504	37·3	124·8

In consequence of the fact that some 377,000 cwt. of bacon and 50,000 cwt. of unenumerated meats of foreign and colonial origin are exported from England, allowance has been made in computing the above figures.

According to the above results, the average consumption of meat in this country must have increased considerably. It has been variously estimated at from 105lbs. (Mulhall) to 120lbs., but in all probability the increase has been occasioned by the low prices of frozen meat and American bacon, which have brought them more within the reach of the "submerged tenth" of our population. Major Craigie said, in 1887, that within a score of years we had increased our domestic consumption by about 10 per cent, or from 100lbs. to 109lbs. He also calculated that we consumed 53lbs. of beef per head. Our own figures show a further increase, but we must again observe that to some extent this higher figure is based upon the belief that more cattle per cent are slaughtered than formerly on account of their maturing earlier, *i.e.*, reaching the same weights in a shorter time.

It is worthy of remark that the value of the meat of home growth consumed in the United Kingdom is almost identical with that estimated by Mr. James Howard three years ago. Thus, if the imported meat (1,426,504,000lbs.) cost £31,500,000, the home-grown meat (3,321,902,000lbs.) would, at the same rate, be worth £73,300,000. It would, however, be fair to value the latter at a higher figure, in which case the total value would approximate very closely to the estimate made by the late Mr. Howard, in which he made the value £75,700,000.

CONCLUSION.

THE conclusions to be drawn from a perusal of this paper are distinct, and in some cases definite. In the first place, the information at our command does not warrant a belief that beef-producing countries will increase in number, or that those in existence will be able to send us largely-increased quantities of beef for a considerable time. We have seen that a limit to the American export surplus is anticipated earlier than many writers have imagined; that the larger European beef-producing countries have almost or quite ceased to send us supplies; that there is a natural limit to the smaller countries which, however energetic their people, cannot be overstepped; and that our colonies at the Antipodes are not yet in a position to enter our markets upon a large scale. With regard to

mutton, the facts before us teach a different lesson, for, although we have little to expect in the way of large imports from European countries, the supply from our Australian colonies is practically unlimited. With a boundless acreage, and flocks of enormous size, the expansion of the trade to proportions of which we have little idea is only a question of time and transport. With Canada we may some day have also to reckon. The Argentine Republic possesses a large trade, and, although it is not a profitable one, difficulties will probably be overcome in the hope of future prospects. The pig meat trade may grow in any country; it is cosmopolitan, and prices are sure to remain low. To prevent a rise in beef and mutton we have to ensure the protection of our own flocks and herds from disease. With the advent of diseased animals from abroad we have closed ports. With disease in this country we have restrictions of a more severe character—closed markets, infected circles, and a general derangement of the live meat trade. With a clean bill of health at home—the backbone of our meat business—home production is stimulated, our markets are full, and our people obtain the best meat at prices within their reach.

CO-OPERATIVE SOCIETIES IN THE UNITED KINGDOM.

STATISTICS SHOWING THE POSITION AND PROGRESS OF THE CO-OPERATIVE MOVEMENT FROM 1862 TO 1888.

THE following tables are continued from the last year's "Annual," with the figures for the year 1888 added.

Table No. 1, which relates to the whole of the societies in the United Kingdom, shows that at the end of 1888 there were 1,732 enrolled; of these 1,592 had furnished returns, whilst 140 had omitted to do so.

These 1,732 societies had a membership of 1,011,258 persons; their sales for the year were £37,793,903; they realised a net profit of £3,454,974, and granted £24,245 to educational purposes.

Compared with the figures for 1878, the foregoing results show very substantial increases, viz., 80 per cent in membership, 76 per cent in sales, and 88 per cent in profit.

The total sales for the twenty-seven years 1862 to 1888 are £472,254,089, on which a net profit of £39,674,955 has been realised.

Table No. 2 relates to societies in Great Britain; No. 3 to England and Wales; No. 4 to Scotland; and No. 5 to Ireland.

From the last three tables we extract the following comparisons:—

CO-OPERATION IN ENGLAND AND WALES DURING 1878 AND 1888.

	1878.	1888	Increase per cent.
Societies (making returns) ..No.	963	1,244	29
Members .....No.	490,584	850,020	73
Capital (share and loan) .....£	6,230,354	11,537,742	85
Sales .....£	18,719,081	30,350,048	62
Profits .....£	1,583,925	2,766,131	74

CO-OPERATION IN SCOTLAND DURING 1878 AND 1888.

	1878.	1888.	Increase per cent.
Societies (making returns) ..No.	218	335	54
Members .....No.	70,119	159,753	127
Capital (share and loan).....£	561,236	1,849,447	229
Sales .....£	2,666,565	7,392,381	177
Profits .....£	252,446	685,446	171

CO-OPERATION IN IRELAND DURING 1878 AND 1888.

	1878.		1888.
Societies .....No.	4	.....	13
Members .....No.	290	.....	1,485
Capital (share and loan) .....£	1,570	.....	11,917
Sales .....£	16,573	.....	51,474
Profits .....£	1,289	.....	3,397

CO-OPERATIVE SOCIETIES,

TABLE (1).—GENERAL SUMMARY *of* RETURNS

(Compiled from Official

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
					£	£	£	£
1862	*a*454	*g*68	332	90,341	428,376	54,499	2,333,523	165,562
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005
1864	146	110	394	*b*129,429	684,182	89,122	2,836,606	224,460
1865	101	182	403	*b*124,659	819,367	107,263	3,373,847	279,226
1866	163	240	441	*b*144,072	1,046,310	118,023	4,462,676	372,307
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399
1872	141	113	935	330,550	2,969,573	371,541	13,012,120	936,715
1873	226	138	983	387,765	3,581,405	496,830	15,639,714	1,110,658
1874	130	232	1,031	412,733	3,905,093	587,342	16,374,053	1,228,038
1875	117	285	1,170	480,076	4,403,547	849,990	18,499,901	1,429,090
1876	82	177	1,167	508,067	5,141,390	919,772	19,921,054	1,743,980
1877	67	246	1,148	529,081	5,445,449	1,073,275	21,390,447	1,924,551
1878	52	121	1,185	560,993	5,647,443	1,145,717	21,402,219	1,837,660
1879	52	146	1,151	572,621	5,755,522	1,496,343	20,382,772	1,857,790
1880	69	100	1,183	604,063	6,232,093	1,341,290	23,248,314	*c*1,868,599
1881	66	..	1,240	643,617	6,940,173	1,483,583	24,945,063	1,981,109
1882	67	115	1,288	687,158	7,591,241	1,622,431	27,541,212	2,155,398
1883	55	170	1,291	729,957	7,921,356	1,577,086	29,336,028	2,434,996
1884	78	63	1,400	797,950	8,646,188	1,830,836	30,424,101	2,723,794
1885	84	50	1,441	850,659	9,211,259	1,945,834	31,305,910	2,988,690
1886	83	65	1,486	894,488	9,747,452	2,160,090	32,730,745	3,070,111
1887	87	145	1,516	967,828	10,344,216	2,253,576	34,483,771	3,190,309
1888	101	140	1,592	1,011,258	10,946,219	2,452,887	37,793,903	3,454,974
						Totals ..	£472,254,089	£39,674,955

a The Total Number Registered

b Reduced by 18,278 for 1864, 23,927 for 1865, and 30,921 for 1866, being the number of "Individual Members"

c Estimated on the basis of the returns made

d Includes Joint-

e The return states this sum to be "Investments other than in Trade," which may mean investments in the

g Estimated.

UNITED KINGDOM.

for each Year, from 1862 to 1888 inclusive.

Sources, and Corrected.)

Trade Expenses.	Trade Stock.	Capital Invested in		Profit Devoted to Education.	Amount of Reserve Fund.	Year.
		Industrial and Provident Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	*d* 494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1,029,446	145,004	262,594	5,097	66,631	1871
479,130	1,383,063	318,477	382,846	6,696	93,601	1872
556,540	1,627,402	370,402	449,039	7,107	102,722	1873
594,455	1,781,053	418,301	522,081	7,949	116,829	1874
686,178	2,095,675	667,825	553,454	10,879	241,930	1875
1,279,856	2,664,042	....	....	....	....	1876
1,381,961	2,648,282	....	....	....	....	1877
1,494,607	2,609,729	....	....	....	....	1878
1,537,138	2,857,214	....	....	....	....	1879
1,429,160	2,880,076	*e* 3,447,347	....	13,910	....	1880
....	3,053,333	....	....	13,825	....	1881
1,690,107	3,452,942	*e* 4,281,264	....	14,778	....	1882
1,826,804	3,709,555	*e* 4,497,718	....	16,788	....	1883
1,936,485	3,575,836	*e* 4,550,890	....	19,154	....	1884
2,082,539	3,729,492	*e* 5,433,120	....	20,712	....	1885
1,800,347	4,072,765	3,858,940	....	19,878	....	1886
1,960,374	4,360,836	4,491,483	....	21,380	....	1887
2,045,391	4,556,593	5,233,859	....	24,245	....	1888

to the end of 1862.
returned by the Wholesale Society, and which were included in the returns from the Retail Societies, to the Central Co-operative Board for 1881.
stock Companies.
Wholesale, Corn Mills, Joint-stock Companies, Building Departments, Banks, Mortgages, Loans, &c.

CO-OPERATIVE SOCIETIES,

TABLE (2).—GENERAL SUMMARY *of* RETURNS

(Compiled from Official

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
					£	£	£	£
1862	*a*454	*g*68	332	90,341	428,376	54,499	2,333,523	165,562
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005
1864	146	110	394	*b*129,429	684,182	89,122	2,836,606	224,460
1865	101	182	403	*b*124,659	819,367	107,263	3,373,847	279,226
1866	163	240	441	*b*144,072	1,046,310	118,023	4,462,676	372,307
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399
1872	138	104	927	339,986	2,968,758	371,531	12,992,345	935,551
1873	225	135	978	387,301	3,579,962	496,740	15,623,553	1,109,795
1874	128	227	1,026	412,252	3,903,608	586,972	16,358,278	1,227,226
1875	116	283	1,163	479,284	4,793,909	844,620	18,484,382	1,427,365
1876	82	170	1,165	507,857	5,140,219	919,762	19,909,699	1,742,501
1877	66	240	1,144	528,576	5,437,959	1,073,265	21,374,013	1,922,361
1878	52	119	1,181	560,703	5,645,883	1,145,707	21,385,646	1,836,371
1879	51	146	1,145	573,084	5,747,907	1,496,143	20,365,602	1,856,308
1880	67	100	1,177	603,541	6,224,271	1,341,190	23,231,677	*c*1,866,839
1881	62	..	1,230	642,783	6,937,284	1,483,583	24,926,005	1,979,576
1882	66	113	1,276	685,981	7,581,739	1,622,253	27,509,055	2,153,699
1883	55	165	1,282	728,905	7,912,216	1,576,845	29,303,441	2,432,621
1884	76	57	1,391	896,845	8,636,960	1,830,624	30,392,112	2,722,103
1885	84	47	1,431	849,616	9,202,138	1,945,508	31,273,156	2,986,155
1886	82	62	1,474	893,153	9,738,278	2,159,746	32,684,244	3,067,436
1887	84	140	1,504	966,403	10,333,069	2,252,672	34,437,879	3,187,902
1888	100	130	1,579	1,009,773	10,935,031	2,452,158	37,742,429	3,451,577
						Totals..	£471,816,278	£39,643,879

a The Total Number Registered

b Reduced by 18,278 for 1864, 23,927 for 1865, and 30,921 for 1866, being the number of "Individual Members"

c Estimated on the basis of the returns made

d Includes Joint-

e The return states this sum to be "Investments other than in Trade," which may mean investments in the

g Estimated.

GREAT BRITAIN.

for each Year, from 1862 to 1888 inclusive.

Sources, and Corrected.)

Trade Expenses.	Trade Stock.	Capital Invested in		Profit Devoted to Education.	Amount of Reserve Fund.	Year.
		Industrial and Provident Societies, and other than Trade.	Joint-stock Companies.			
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	*d*494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1,029,446	145,004	262,594	5,097	66,631	1871
477,846	1,383,063	318,477	382,846	6,696	93,601	1872
555,766	1,627,402	370,402	449,039	7,107	102,722	1873
593,548	1,781,053	418,301	522,081	7,949	116,829	1874
685,118	2,094,325	667,825	553,454	10,879	241,930	1875
1,279,392	2,664,042	....	....	....	....	1876
1,381,285	2,647,309	....	....	....	....	1877
1,493,842	2,609,729	....	....	....	....	1878
1,536,282	2,857,214	....	....	....	....	1879
1,428,303	2,878,832	*e*3,429,935	17,407	13,910	....	1880
....	3,051,665	....	....	13,822	....	1881
1,689,823	3,450,481	*e*4,281,243	....	14,778	....	1882
1,818,880	3,706,978	*e*4,490,477	....	16,788	....	1883
1,933,297	3,572,226	4,543,388	....	19,154	....	1884
2,080,427	3,726,756	5,425,319	....	20,712	....	1885
1,797,696	4,068,831	3,858,451	....	19,878	....	1886
1,957,873	4,354,857	4,490,674	....	21,380	....	1887
2,041,566	4,550,743	5,233,349	....	24,238	....	1888

to the end of 1862.
returned by the Wholesale Society, and which were included in the returns from the Retail Societies.
to the Central Co-operative Board for 1881.
stock Companies.
Wholesale, Corn Mills, Joint-stock Companies, Building Departments, Banks, Mortgages, Loans, &c.

CO-OPERATIVE SOCIETIES,

TABLE (3).—General Summary *of* Returns

(Compiled from Official

Year.	Number of Societies			Number of Members.	Capital at End of Year.		Sales.	Net Profit.
	Registered in the Year.	Not Making Returns.	Making Returns.		Share.	Loan.		
					£	£	£	£
1862	454	68	332	90,341	428,376	54,499	2,333,523	165,562
1863	51	73	381	111,163	579,902	76,738	2,673,778	216,005
1864	146	110	394	129,429	684,182	89,122	2,836,606	224,460
1865	101	182	403	124,659	819,367	107,263	3,373,847	279,226
1866	163	240	441	144,072	1,046,310	118,023	4,462,676	372,307
1867	137	192	577	171,897	1,475,199	136,734	6,001,153	398,578
1868	190	93	673	211,781	1,711,643	177,706	7,122,360	424,420
1869	65	133	754	229,861	1,816,672	179,054	7,353,363	438,101
1870	67	153	748	248,108	2,035,626	197,029	8,201,685	553,435
1871	56	235	746	262,188	2,305,951	215,453	9,463,771	666,399
1872	113	66	749	301,157	2,786,965	344,509	11,397,225	809,237
1873	186	69	790	340,930	3,344,104	431,808	13,651,127	959,493
1874	113	177	810	357,821	3,653,582	498,052	14,295,762	1,072,139
1875	98	237	926	420,024	4,470,857	742,073	16,206,570	1,250,570
1876	72	113	937	444,547	4,825,642	774,809	17,619,247	1,541,384
1877	58	186	896	461,666	5,092,958	916,955	18,697,788	1,680,370
1878	48	65	963	490,584	5,264,855	965,499	18,719,081	1,583,925
1879	40	106	937	504,117	5,374,179	1,324,970	17,816,037	1,598,156
1880	53	62	953	526,686	5,806,545	1,124,795	20,129,217	1,600,000
1881	50	..	971	552,353	6,431,553	1,205,145	21,276,850	1,657,564
1882	51	82	1,012	593,262	7,058,025	1,293,595	23,607,809	1,814,375
1883	42	158	990	622,871	7,281,448	1,203,764	24,776,980	2,036,826
1884	64	48	1,079	672,780	7,879,686	1,359,007	25,600,250	2,237,210
1885	73	47	1,114	717,019	8,364,367	1,408,941	25,858,065	2,419,615
1886	67	61	1,141	751,117	8,793,068	1,551,989	26,747,174	2,476,651
1887	73	139	1,170	813,537	9,269,422	1,598,420	28,221,988	2 542,884
1888	95	125	1,244	850,020	9,793,852	1,743,890	30,350,048	2,766,131
						Totals ..	£408,793,980	£33,785,023

ENGLAND AND WALES.

for each Year, from 1862 to 1888 inclusive.

Sources, and Corrected.)

Trade Expenses.	Trade Stock.	Capital Invested in: Industrial and Provident Societies, and other than Trade.	Capital Invested in: Joint-stock Companies.	Profit Devoted to Education.	Amount of Reserve Fund.	Year.
£	£	£	£	£	£	
127,749	....	....	....	....	....	1862
167,620	....	....	....	....	....	1863
163,147	....	....	....	....	....	1864
181,766	....	....	....	....	....	1865
219,746	....	....	....	....	....	1866
255,923	583,539	494,429	....	3,203	32,629	1867
294,451	671,165	137,397	166,398	3,636	33,109	1868
280,116	784,847	117,586	178,367	3,814	38,630	1869
311,910	912,102	126,736	204,876	4,275	52,990	1870
346,415	1 029,446	145,004	262,594	5,097	66,631	1871
419,567	1,219,092	300,712	380,043	6,461	79,292	1872
488,464	1,439,137	337,811	443,724	6,864	83,149	1873
517,445	1,572,264	386,640	510,057	7,486	98,732	1874
598,080	1,852,437	636,400	538,140	10,454	220,011	1875
1,137,053	2,377,380	....	....	....	....	1876
1,222,664	2,310,041	....	....	....	....	1877
1,315,364	2,286,795	....	....	....	....	1878
1,353,832	2,486,704	....	....	....	....	1879
1,285,875	2,512,039	†3,226,370	....	13,262	....	1880
....	2,585,443	....	....	13,314	....	1881
1,499,633	2,969,957	†3,919,455	....	14,070	....	1882
1,606,424	3,160,569	†4,113,995	....	15,903	....	1883
1,684,070	2,932,817	†4,118,751	....	18,062	....	1884
1,825,717	3,044,534	†4,811,819	....	19,374	....	1885
1,525,194	3,323,450	†3,475,319	....	18,440	....	1886
1,670,290	3,512,626	†4,112,807	....	19,707	....	1887
1,743,838	3,687,394	†4,868,141	....	22,391	....	1888

† "Investments at end of year"—the class not stated.

CO-OPERATIVE

TABLE (4).—General Summary *of* Returns

(Compiled from Official

Year.	Number of Societies			Number of Members.	Capital at End of Year.	
	Registered.	Not Making Returns.	Making Returns.		Share.	Loan.
					£	£
1872	25	38	178	38,829	181,793	27,022
1873	39	66	188	46,371	235,858	64,932
1874	15	50	216	54,431	250,026	88,920
1875	18	46	237	59,260	323,052	102,547
1876	10	57	228	63,310	314,577	144,953
1877	8	54	248	66,910	345,001	156,310
1878	4	54	218	70,119	381,028	180,208
1879	11	*40	208	68,967	373,728	171,173
1880	14	38	224	76,855	417,726	216,395
1881	12	9	259	90,430	505,731	278,438
1882	15	31	264	92,719	523,714	328,658
1883	13	7	292	106,034	630,768	373,081
1884	12	9	312	124,065	757,274	471,617
1885	11	..	317	132,597	837,771	536,567
1886	15	1	333	142,036	945,210	607,757
1887	11	1	334	152,866	1,063,647	654,252
1888	5	5	335	159,753	1,141,179	708,268
						Totals..£

* Not stated, but estimated at about 40.

SOCIETIES, SCOTLAND.

for each Year, from 1872 to 1888 inclusive.

Sources, and Corrected.)

Sales.	Net Profit.	Trade Expenses.	Trade Stock.	Capital Invested in		Profit Devoted to Education.	Amount of Reserve Fund.	Year.
				Industrial and Provident Societies and other than Trade	Joint-stock Companies.			
£	£	£	£	£	£	£	£	
1,595,120	126,314	58,279	163,971	17,765	2,803	235	14,309	..1872
1,972,426	150,302	67,302	188,265	32,591	5,315	243	19,573	..1873
2,062,516	155,087	76,103	208,789	31,661	12,024	463	18,097	..1874
2,277,812	176,795	87,038	241,888	31,425	15,314	425	21,919	..1875
2,290,452	201,117	142,339	286,662	..	..	..	..	..1876
2,676,225	241,991	158,621	337,268	..	..	..	..	..1877
2,666,565	252,446	178,478	322,934	..	..	..	..	..1878
2 549,565	258,152	182,450	370,510	..	..	..	..	..1879
3,102,460	266,839	142,428	366,793	203,565	17,407	648	..	..1880
3,649,155	322,012	..	466,222	..	..	508	..	..1881
3,901,246	339,324	190,190	480,524	†361,788	..	708	..	..1882
4,526,461	395,795	212,456	546,409	†376,482	..	885	..	..1883
4,791,862	484,893	249,227	639,409	†424,637	..	1,092	..	..1884
5,415,091	566,540	254,710	682,222	†613,500	..	1,338	..	..1885
5,937,070	590,785	272,502	745,381	†383,132	..	1,438	..	..1886
6,215,891	645,018	287,583	842,231	†377,867	..	1,673	..	..1887
7,392,381	685,446	297,728	863,349	†365,208	..	1,847	..	..1888
63,022,298	5,858,856							

† "Investments at end of year;" the class of investment is not stated.

CO-OPERATIVE SOCIETIES, IRELAND.

TABLE (5).—GENERAL SUMMARY *of* RETURNS *for each Year, from 1872 to 1888 inclusive.*

(Compiled from Official Sources, and Corrected.)

YEAR.	NUMBER OF SOCIETIES			Number of Members.	CAPITAL AT END OF YEAR.		Sales.	Net Profit.	Trade Expenses.	Trade Stock.	CAPITAL INVESTED IN		Profit Devoted to Education.	Amount of Reserve Fund.
	Registered.	Not Making Returns.	Making Returns.		Share.	Loan.					Industrial and Provident Societies.	Joint-stock Companies.		
					£	£	£	£	£	£	£	£	£	£
1872	3	9	8	564	1,815	10	19,775	1,164	1,284	..	..	..	..	..
1873	1	3	5	464	1,443	90	16,161	863	774	..	..	..	..	..
1874	2	5	5	481	1,485	370	15,775	812	907	..	..	..	..	..
1875	1	2	7	792	9,638	5,370	15,519	1,725	1,060	1,350	..	..	..	67
1876	..	7	2	210	1,171	10	11,355	1,479	464	..	..	..	..	..
1877	1	6	4	505	7,490	10	16,434	2,190	676	973	..	..	..	..
1878	..	2	4	290	1,560	10	16,573	1,289	765	..	..	..	..	15
1879	1	..	6	537	7,615	200	17,170	1,482	856	..	..	..	45	71
1880	2	..	6	522	7,822	100	16,637	1,760	857	1,244	5	..	..	..
1881	4	..	10	834	2,889	..	19,058	1,533	1,039	1,668	8	..	3	..
1882	1	2	12	1,177	9,502	178	32,157	1,699	2,284	2,461	† 21	..	..	..
1883	..	5	9	1,052	9,140	241	32,587	2,375	1,924	2,577	†7,241	..	..	..
1884	2	6	9	1,105	9,228	212	31,989	1,691	3,188	3,610	†7,502	..	..	..
1885	..	3	10	1,043	9,121	326	32,754	2,535	2,112	2,736	†7,801	..	..	..
1886	1	3	12	1,335	9,174	344	46,501	2,675	2,651	3,934	..	..	..	..
1887	3	5	12	1,425	11,147	904	45,892	2,407	2,501	5,979	†809	..	..	..
1888	1	10	13	1,485	11,188	729	51,474	3,397	3,825	5,850	†510	..	7	..
						Totals .£	437,811	£31,076						

† "Investments at end of year;" the class not stated.

CO-OPERATIVE SOCIETIES IN ENGLAND AND WALES WITH AN ANNUAL TRADE OF OVER £200,000.

(See Table 6, pages 456–7.)

THE number of societies coming under this head is twenty-three, of which twelve are in Lancashire, seven in Yorkshire, two in Durham, and one each in Middlesex and Northumberland.

The combined sales of these twenty-three societies amount to £14,868,350, being 49 per cent of the entire sales of societies in England and Wales. The Wholesale Society comes first with a business of £7,028,944, and is followed by the Civil Service Supply, with sales amounting to £1,775,500; next come Leeds Society and Corn Mill, Sowerby Bridge Corn Mill, Bolton, Oldham Industrial, Newcastle-on-Tyne, and Barnsley British Societies, all of whose sales considerably exceed £300,000. The sales of the remaining fifteen societies are under that sum.

CO-OPERATIVE SOCIETIES IN ENGLAND AND WALES WITH AN ANNUAL TRADE OF BETWEEN £100,000 AND £200,000.

(See Table 7, page 458.)

THREE fresh societies make their appearance in table 7 this year, viz., Carlisle, with a trade of £100,614; Morley, £104,221; Heywood, £101,543.

Of the thirty-one societies coming under this head for 1889, Lancashire furnishes eight, Yorkshire nine, Durham four, Cumberland two, and Cheshire, Leicestershire, Devonshire, Derbyshire, Lincolnshire, Essex, Gloucestershire, Kent, one each. Their total sales are £4,298,610, or over 14 per cent of the total sales of societies in England and Wales.

TABLE (6), showing the Sales of all Societies which,

	NAMES OF SOCIETIES.	COUNTIES.	1870	1871	1872
			£	£	£
1	Rochdale Equitable Pioneers..	Lancashire..	222,138	246,674	267,572
2	Rochdale Co-op. Corn Mill....	—	....	....	215,584
3	Co-operative Wholesale Society	—	677,734	758,764	1,153,132
4	Civil Service Supply Association	Middlesex ..	492,418	625,305	712,399
5	Sowerby Bridge Corn Mill....	Yorkshire ..	....	206,979	218,645
6	Halifax Industrial	—	....	....	235,730
7	Leeds Industrial and Corn Mill.	—	....	....	....
8	Oldham Industrial	Lancashire..	....	....	....
9	Bury District	—	....	....	....
10	Rochdale Cotton Manufact'ring	—	....	....	....
11	Halifax Corn Mill	Yorkshire ..	....	....	....
12	Oldham Star Corn Mill	Lancashire..	....	....	....
13	Manchester Equitable	—	....	....	....
	TOTALS.....	.....	1,392,290	1,837 722	2,803,062

	NAMES OF SOCIETIES.	COUNTIES.	1880	1881	1882
			£	£	£
1	Rochdale Equitable Pioneers..	Lancashire..	283,655	272,141	274,627
2	Rochdale Co-op. Corn Mill....	—	301,836	299,672	286,966
3	Co-operative Wholesale Society	—	3,339,681	3,574,095	4,038,238
4	Civil Service Supply Association	Middlesex ..	1,420,619	1,488,507	1,603,670
5	Sowerby Bridge Corn Mill....	Yorkshire ..	565,194	589,929	594,664
6	Halifax Industrial	—	207,539	....	....
7	Leeds Industrial and Corn Mill.	—	412,225	432,811	438,478
8	Oldham Industrial	Lancashire..	303,012	310,387	320,336
9	Bury District	—	231,918	225,689	240,227
10	Rochdale Cotton Manufact'ring	—	....	....	....
11	Halifax Corn Mill	Yorkshire ..	....	....	....
12	Oldham Star Corn Mill	Lancashire..	....	....	....
13	Manchester Equitable.....	—	242,966	242,535	254,124
14	Bolton	—	....	219,657	254,414
15	Gateshead.....	Durham....	....	200,261	225,202
16	Barnsley British	Yorkshire ..	....	....	215,421
17	Oldham Equitable	Lancashire..	....	....	210,581
18	Huddersfield.....	Yorkshire ..	....	....	201,718
19	Newcastle-upon-Tyne.....	Nrthmbrlnd.	....	....	....
20	Accrington and Church	Lancashire..	....	....	....
21	Bishop Auckland.....	Durham....	....	....	....
22	Brighouse.....	Yorkshire ..	....	....	....
23	Bradford	—	....	....	....
24	Pendleton.....	Lancashire..	....	....	....
25	Burnley.....	—	....	....	....
	TOTALS.....	.....	7,308,645	7,855,684	9,158,666

ENGLAND AND WALES.

OF SALES.

during the years 1870 to 1889, exceeded £200,000 a year.

1873	1874	1875	1876	1877	1878	1879	
£	£	£	£	£	£	£	
287,212	298,889	305,657	305,191	311,715	299,039	270,070	1
240,836	244,864	202,988	....	252,045	285,920	270,337	2
1,636,950	1,964,829	2,247,395	2,697,366	2,827,052	2,705,625	2,645,331	3
819,428	896,094	925,332	983,545	946,780	1,384,042	1,474,923	4
286,964	338,246	338,364	406,017	460,013	468,001	447,301	5
264,137	273,186	270,499	237,754	237,447	209,571	....	6
312,308	386,536	390,645	365,639	374,166	358,865	360,017	7
213,600	237,845	253,438	284,977	316,903	279,999	261,813	8
209,382	223,622	212,814	231,692	251,057	241,886	217,282	9
....	209,654	....	....	....	....	....	10
....	....	....	207,648	244,262	224,018	....	11
....	....	....	....	219,664	....	....	12
....	....	....	....	....	....	208,513	13
4,270,817	5,073,765	5,147,132	5,719,829	6,441,104	6,456,966	6,155,587	

1883	1884	1885	1886	1887	1888	1889	
£	£	£	£	£	£	£	
276,457	262,270	252,072	246,031	256,736	267,727	270,675	1
259,396	209,912	....	....	....	....	201,159	2
4,546,891	4,675,371	4,793,151	5,223,179	5,713,235	6,200,074	7,028,944	3
1,682,655	1,691,455	1,758,648	1,743,306	1,732,483	1,763,814	1,775,500	4
499,260	395,502	343,723	333,655	357,886	406,185	430,703	5
206,058	224,780	226,175	224,870	224,259	223,217	231,256	6
486,784	490,332	495,297	480,204	526,002	558,771	639,223	7
335,672	344,647	330,038	312,230	322,090	337,368	350,698	8
250,123	249,978	256,545	240,239	236,042	241,033	246,112	9
....	....	....	....	206,549	206,549	206,490	10
....	240,363	203,877	....	222,008	....	....	11
....	....	....	....	....	....	....	12
258,935	240,241	232,998	229,886	233,181	249,340	267,960	13
295,437	326,201	324,467	335,877	327,288	357,001	392,458	14
248,364	248,295	268,720	269,585	266,005	272,877	282,186	15
253,512	266,616	260,112	283,903	293,876	292,635	327,704	16
235,678	239,364	227,873	228,946	228,523	233,454	242,959	17
208,710	....	....	209,426	252,682	269,865	287,844	18
239,877	286,686	312,719	338,030	328,848	327,911	338,339	19
....	200,608	208,307	209,291	211,226	214,728	209,776	20
....	....	....	200,931	209,969	212,471	229,224	21
....	....	....	....	204,127	209,948	219,917	22
....	....	....	....	....	202,930	224,911	23
....	....	....	....	....	204,501	225,488	24
....	....	....	....	....	213,219	238,824	25
10,283,809	10,592,621	10,494,722	11,109,589	12,353,015	13,465,618	14,868,350	

CO-OPERATIVE SOCIETIES—ENGLAND AND WALES.

Bird's-eye View of Sales.

TABLE (7), showing the Sales *of all* Societies *which, during the years 1886 to 1889, were over £100,000 and under £200,000 a year; also* Sales *of the same* Societies *for the year 1879.*

No.	Name of Society.	County.	1879.	1886.	1887.	1888.	1889.
			£	£	£	£	£
1	Crewe Friendly	Cheshire	95,078	130,530	139,273	148,217	167,214
2	Carlisle	Cumberland	63,196	....	....	....	100,614
3	Cleator Moor	,,	89,895	109,734	122,847	147,735	157,731
4	Derby	Derbyshire	110,719	109,127	114,195	124,520	152,304
5	Plymouth	Devonshire	74,171	130,559	141,825	166,978	184,733
6	Annfield Plain	Durham	18,198	....	....	104,242	118,370
7	Bishop Auckland	,,	87,812	(over)	(over)	(over)	(over)
8	Blaydon	,,	79,741	165,770	165,913	171,422	160,494
9	Chester-le-Street	,,	79,100	148,521	162,071	162,830	173,875
10	Crook	,,	70,106	150,369	162,894	172,436	184,684
11	Haswell	,,	63,535	109,021	100,350	104,923	....
12	Stratford	Essex	61,335	103,370	117,935	152,470	155,973
13	Gloucester	Gloucestersh.	59,164	110,867	118,037	122,931	115,350
14	Woolwich Royal Arsenal	Kent	27,475	....	105,038	118,929	126,078
15	Burnley	Lancashire	31,778	125,215	170,876	(over)	(over)
16	Eccles	,,	111,886	120,839	130,986	149,594	167,614
17	Failsworth	,,	83,878	104,499	104,840	110,387	112,664
18	Heywood	,,	75,372	....	....	....	101,543
19	Leigh	,,	....	107,695	111,840	136,774	132,280
20	Oldham Star Corn Mill	,,	....	153,913	171,363	187,651	135,650
21	Over Darwen Indus.	,,	80,814	....	....	106,488	111,404
22	Pendleton	,,	39,350	134,255	176,461	(over)	(over)
23	Preston	,,	38,260	....	101,078	104,457	114,754
24	Radcliffe & Pilkington	,,	88,165	101,161	109,965	124,488	135,500
25	Rochdale Manufact.	,,	163,639	190,101	(over)	(over)	(over)
26	,, Co-op. Corn Mill	,,	270,337	166,873	149,548	178,649	(over)
27	Leicester	Leicestershire	114,931	143,362	137,194	119,975	124,423
28	Lincoln	Lincolnshire	47,344	102,090	114,483	126,329	134,378
29	Batley	Yorkshire	75,123	102,795	109,957	114,788	114,111
30	Bradford	,,	112,290	146,567	171,991	(over)	(over)
31	Brighouse	,,	104,458	188,355	(over)	(over)	(over)
32	Dewsbury	,,	129,790	145,519	148,641	158,413	168,861
33	Halifax Flour	,,	173,718	192,217	(over)	179,534	195,295
34	Heckmondwike	,,	132,507	135,592	141,475	148,684	155,607
35	Huddersfield	,,	136,391	(over)	(over)	(over)	(over)
36	Keighley	,,	49,299	106,626	117,378	118,865	131,735
37	Middlesbrough	,,	42,913	....	100,137	104,526	113,799
38	Morley	,,	60,337	....	....	....	104,221
39	Todmorden	,,	72,603	101,672	113,193	118,460	123,777
40	Windhill	,,	44,174	....	....	108,585	123,577
			3,258,882	3,837,214	3,831,784	4,094,280	4,298,610

CO-OPERATIVE CONGRESSES.

No.	Year.	Date of Opening.	Where Held.	Presidents. First Day. Inaugural Address delivered by	Second Day.	Third Day.
1	1869	May 31	London: Society of Arts, John Street, Adelphi....	T. Hughes, M.P. ..	A. J. Mundella, M.P.	W. Morrison, M.P.
2	1870	June 6	Manchester: Memorial Hall	W. Morrison, M.P.	Rev. W. N. Molesworth, M.A.	J. T. Hibbert, M.P.
3	1871	April 10	Birmingham: Midland Institute	Hon. Auberon Herbert, M.P.	C. Cattell	W. Morrison, M.P.
4	1872	,, 1	Bolton: Co-operative Hall	T. Hughes, M.P. ..	E. V. Neale	W. Morrison, M P.
5	1873	,, 12	Newcastle: Mechanics' Institute	Joseph Cowen, jun.	W. Morrison, M.P	T. Hughes, M.P.
6	1874	,, 6	Halifax: Mechanics' Hall	Thos. Brassey, M.P.	W. Morrison.....	W. Morrison.
7	1875	March 29	London: Co-operative Institute	Professor T. Rogers.	T. Hughes, Q.C. ..	W. Morrison.
8	1876	April 17	Glasgow: Assembly-rooms, 138, Bath Street....	*Professor Caird. Professor Hodgson.	G. Anderson, M.P.	Baillie Collins.
9	1877	,, 2	Leicester: Museum Hall	Hon. Auberon Herbert.	Lloyd Jones.....	Abraham Greenwood.
10	1878	,, 22	Manchester: Co-operative Hall, Downing Street ..	Marquis of Ripon..	Bishop of M'nchst'r.	Dr. John Watts.
11	1879	,, 14	Gloucester: Corn Exchange	Professor Stuart ..	J. T. W. Mitchell..	James Crabtree.
12	1880	May 17	Newcastle-on-Tyne: Bath Lane Schoolroom	Bishop of Durham.	R. S. Watson	H. R. Bailey.
13	1881	June 6	Leeds: Albert Hall.....	Lord Derby	T. Hughes, Q.C. ..	James Crabtree.
14	1882	May 29	Oxford: Town Hall	Lord Reay	Councillor Pumphrey.	George Hines.
15	1883	,, 14	Edinburgh: Oddfellows' Hall	Right Hon. W. E. Baxter, M.P.	Wm. Maxwell	John Allan.
16	1884	June 2	Derby: Lecture Hall, Wardwick	Sedley Taylor	A. Scotton	Councillor Hartley, [Lincoln.
17	1885	May 25	Oldham: Co-operative Hall, King Street	Lloyd Jones.....	F. Hardern	Lewis Feber.
18	1886	June 14	Plymouth: Guildhall	Earl of Morley....	A. H. D. Acland, M.P.	J. H. Young.
19	1887	May 30	Carlisle: Her Majesty's Theatre.....	G. J. Holyoake ..	Sir W. Lawson, M.P.	Councillor Rule.
20	1888	,, 21	Dewsbury: Industrial Hall	E. V. Neale	Marquis of Ripon..	Jno. Cave, Junr.
21	1889	June 10	Ipswich: Public Hall.....	Prof. A. Marshall..	B. Jones	G. Hines.
22	1890	May 26	Glasgow: City Hall	Earl of Rosebery ..	Wm. Maxwell	James Deans.

* Professor Caird presided at this Congress; the inaugural address was delivered by Professor Hodgson. In all other cases the chairman for the day delivered the inaugural address.

IMPORT DUTIES IN THE UNITED KINGDOM.

NOTE.—In this Table subdivisions of Articles of a similar nature, and subject to the same Rate of Duty, are classed under one head.

TABLE showing the several ARTICLES *subject to* IMPORT DUTIES *in the* UNITED KINGDOM, *and the* RATE *of* DUTY *levied upon each* ARTICLE *distinguishing the* DUTIES *as* ORDINARY IMPORT DUTIES *and those levied to countervail* EXCISE *and other* INLAND REVENUE *upon* BRITISH PRODUCTIONS, *according to the* TARIFF *in operation at 8th August, 1890.*

ARTICLES.		Rates of Duty. £ s. d.
ORDINARY IMPORT DUTIES.		
Cocoa	per lb.	0 0 1
Husks and Shells	per cwt.	0 2 0
Cocoa or Chocolate, ground, prepared, or in any way manufactured	per lb.	0 0 2
Coffee, raw	per cwt.	0 14 0
Kiln-dried, roasted, or ground	per lb.	0 0 2
Coffee and Chicory, mixed	,,	0 0 2
Chicory—		
Raw or kiln-dried	per cwt.	0 13 3
Roasted or ground	per lb.	0 0 2
Fruit:—		
Currants, dried	per cwt.	0 2 0
Figs, Fig Cake, Plums not preserved in sugar, Prunes, and Raisins	,,	0 7 0
Tea	per lb.	0 0 4
Tobacco:—		
Unmanufactured, Stemmed, or Unstemmed:—		
Containing in every 100lbs. weight thereof — 101bs. or more of moisture.	,,	0 3 2
Containing in every 100lbs. weight thereof — less than 101bs. of moisture.	,,	0 3 6
Tobacco—Manufactured:—		
Cigars	,,	0 5 0
Cavendish or Negrohead	,,	0 4 6
Snuff containing in every 100lbs. weight thereof — more than 131bs. of moisture	,,	0 3 9
Snuff containing in every 100lbs. weight thereof — not more than 131bs. of moisture	,,	0 4 6
Other Manufactured Tobacco, and Cavendish or Negrohead Manufactured in Bond from Unmanufactured Tobacco	,,	0 4 0

IMPORT DUTIES IN THE UNITED KINGDOM.

ARTICLES.		Rates of Duty.
		£ s. d.
*Wine:—		
Not exceeding 30 degrees of Proof Spirit	per gallon	0 1 0
Exceeding 30 degrees but not exceeding 42 degrees of Proof Spirit	,,	0 2 6
And for every degree or part of a degree beyond the highest above charged, an additional duty	,,	0 0 3
Degree not to include fractions of next higher degree. Wine includes lees of Wine.		
Additional duty on Sparkling Wine Imported in Bottle—		
Not exceeding the proved market value of 15s. per gallon	,,	0 1 0
Exceeding the proved market value of 15s. per gallon	,,	0 2 6
Beer and Ale, the worts of which were, before fermentation, of a specific gravity of 1,057 degrees	per barrel of 36 gal.	0 6 6
And so on in proportion for any difference in gravity.		And so on in proportion for any difference in gravity.
Beer, Mum, and Spruce:—		
The worts of which were, before fermentation, of a specific gravity—		
Not exceeding 1,215 degrees	,,	1 6 0
Exceeding 1,215 degrees	,,	1 10 6
Import Duties to countervail Excise Duty upon British Spirits.		
Spirits and Strong Waters:—		
Rum, Brandy, Geneva, and Unenumerated Spirits	per proof gallon	0 10 10
Perfumed Spirits and Cologne Water	per gallon	0 17 3
Liqueurs, Cordials, or other preparations containing Spirits, in Bottle, not tested for strength	,,	0 14 8
Chloroform	per lb.	0 3 1
Chloral Hydrate	,,	0 1 3
Collodion	per gallon	1 5 0
Ether, Acetic	per lb.	0 1 10
Ether, Butyric	per gallon	0 15 8
Ether, Sulphuric	,,	1 6 2
Ethyl, Iodide of	,,	0 13 7
Naphtha, purified so as to be potable	per proof gallon	0 10 10
Soap, Transparent, in the manufacture of which Spirit has been used	per lb.	0 0 3
Varnish containing Alcohol—See Spirit Duties.		
Import Duties to countervail Stamp Duties on British-made Articles.		
Cards, Playing	per doz. packs	0 3 9

* The total number of articles and subdivisions of articles in the English Tariff of Import Duties was 53 in May, 1875, as compared with 397 in 1859, and 1,046 in 1840. No Export Duties are levied in the United Kingdom.

INCOME TAX RATES FROM ITS FIRST IMPOSITION IN 1842 TO THE PRESENT TIME.

From and to April 5th.	Income free under.	On £100 to £150.	On £100 and upw'ds.	Chancellor of the Exchequer.	Premier.
	£	Rate in the £			
1842 to 1846	150	—	7d.	Henry Goulburn.	Sir Robert Peel.
1846 ,, 1852	Do.	—	7d.	Sir Charles Wood.	Lord John Russell.
1852 ,, 1853	Do.	—	7d.	Benjamin Disraeli.	Earl of Derby.
1853 ,, 1854	100	5d.	7d.	William E. Gladstone.	Earl of Aberdeen.
1854 ,, 1855	Do.	10d.	1s. 2d.	Do.	Do.
1855 ,, 1857	Do.	11½d.	1s. 4d.	Sir G. Cornewall Lewis.	Viscount Palmerston.
1857 ,, 1858	Do.	5d.	7d.	Do.	Do.
1858 ,, 1859	Do.	5d.	5d.	Do.	Do.
1859 ,, 1860	Do.	6½d.	9d.	Benjamin Disraeli.	Earl of Derby.
1860 ,, 1861	Do.	7d.	10d.	William E. Gladstone.	Viscount Palmerston.
1861 ,, 1863	*100	6d.	9d.	Do.	Do.
1863 ,, 1864	Do.	7d.		Do.	Do.
1864 ,, 1865	Do.	6d.		Do.	Do.
1865 ,, 1866	Do.	4d.		Do.	Do.
1866 ,, 1867	Do.	4d.		Do.	Earl Russell.
1867 ,, 1868	Do.	5d.		Benjamin Disraeli.	Earl of Derby.
1868 ,, 1869	Do.	6d.		George Ward Hunt.	Benjamin Disraeli.
1869 ,, 1870	Do.	5d.		Robert Lowe.	William E. Gladstone.
1870 ,, 1871	Do.	4d.		Do.	Do.
1871 ,, 1872	Do.	6d.		Do.	Do.
1872 ,, 1873	Do.	4d.		Do.	Do.
1873 ,, 1874	Do.	3d.		Do.	Do.
1874 ,, 1876	Do.	2d.		Sir Stafford Northcote.	Benjamin Disraeli.
1876 ,, 1878	†150	3d.		Do.	Earl of Beaconsfield.
1878 ,, 1880	Do.	5d.		Do.	Do.
1880 ,, 1881	Do.	6d.		William E. Gladstone.	William E. Gladstone.
1881 ,, 1882	Do.	5d.		Do.	Do.
1882 ,, 1883	Do.	6½d.		Do.	Do.
1883 ,, 1884	Do.	5d.		Hugh C. E. Childers.	Do.
1884 ,, 1885	Do.	6d.		Do.	Do.
1885 ,, 1886	Do.	8d.		Sir M. Hicks-Beach.	Marquis of Salisbury.
1886 ,, 1887	Do.	8d.		Sir William Harcourt.	William E. Gladstone.
1886 ,, 1887	Do.	8d.		Ld. Randolph Churchill.	Marquis of Salisbury.
1887 ,, 1888	Do.	7d.		G. J. Goschen.	Do.
1888 ,, 1889	Do.	6d.		Do.	Do.
1889 ,, 1890	Do.	6d.		Do.	Do.

TOTAL ANNUAL VALUE OF PROPERTY AND INCOME ASSESSED, 1875–89.

Year.	England.	Scotland.	Ireland.	United Kingdom.	Year.
1875	£481,774,580	£53,934,528	£35,347,059	£571,056,167	1875
1877	480,425,213	54,441,576	35,464,600	570,331,389	1877
1878	486,698,836	55,712,709	35,929,649	578,294,971	1878
1879	485,939,056	55,897,204	36,210,037	578,046,297	1879
1880	485,676,370	55,079,954	36,140,577	576,896,901	1880
1881	493,583,819	55,530,028	36,110,043	585,223,890	1881
1882	507,644,153	57,607,470	36,199,354	601,450,977	1882
1883	516,948,272	59,406,708	36,481,078	612,836,058	1883
1884	530,538,379	61,117,685	36,854,135	628,510,199	1884
1885	533,429,560	61,125,422	36,912,150	631,467,132	1885
1886	533,038,774	60,057,933	36,758,915	629,855,622	1886
1887	535,040,455	57,910,114	36,447,393	629,397,962	1887
1888	542,450,177	57,145,262	36,559,254	636,154,693	1888
1889	550,575,255	57,834,226	36,749,208	645,158,689	1889

* Differential rate upon scale of incomes abolished. Incomes under £100 are exempt; and incomes of £100 and under £199 per annum have an abatement from the assessment of £60:—thus, £100 pays on £40; £160 upon £100; £199 upon £139; but £200 pays on £200.

† Under £150 exempt; if under £400 the tax is not chargeable upon the first £120.

AN ACCOUNT OF THE PUBLIC INCOME AND EXPENDITURE OF THE UNITED KINGDOM FOR THE YEAR ENDING MARCH 31ST, 1890;

DISTINGUISHING THE SEVERAL AMOUNTS RAISED BY TAXATION AND THOSE RECEIVED FROM OTHER SOURCES OF REVENUE.

INCOME.

	£	£
TAXATION :—		
Customs	20,424,000	
Excise	24,160,000	
Land Tax and House Duty	3,000,000	
Property and Income Tax	12,770,000	
Stamps	13,060,000	
		73,414,000
SERVICES UNDERTAKEN BY THE CROWN :—		
Postal	9,450,000	
Telegraphs	2,320,000	
Miscellaneous	177,584	
		11,947,584
CIVIL SERVICES—VARIOUS RECEIPTS :—		
Civil Departments, &c.	1,923,534	
Fee and Patent Stamps	778,273	
Customs	64,857	
Inland Revenue	32,486	
		2,799,150
MISCELLANEOUS :—		
Interest on Advances, &c.	292,633	
Crown Lands—Net Rents	430,000	
Profits from Bank of England	163,584	
Profit from Savings Banks	72,495	
Various Receipts	184,870	
		1,143,582
		£89,304,316

EXPENDITURE.

	£	£
PUBLIC DEBT :—		
Interest and other Charges		28,332,076
Army	17,360,911	
Navy	13,842,241	
Post-office	5,463,205	
Telegraphs	2,176,000	
Packet Service	664,000	
		39,506,357
CIVIL SERVICES—VARIOUS PAYMENTS :—		
Civil Departments	15,589,990	
Customs	905,912	
Inland Revenue	1,748,979	
		18,244,881
Excess of Income over Expenditure		3,221,002
		£89,304,316

AVERAGE PRICE PER £100 *of the* THREE PER CENT CONSOLIDATED STOCK *of the* PUBLIC FUNDS *of the* UNITED KINGDOM, *in* EACH MONTH *in* EACH YEAR *from* 1875 *to* 1888, *and of the* NEW TWO-AND-THREE-QUARTER PER CENT CONSOLIDATED STOCK MONTHLY *from* MARCH, 1888, *to* DECEMBER, 1889.

MONTHS.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	New 2¾ per cent Consol. Stock. 1888.	New 2¾ per cent Consol. Stock. 1889.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
January....	92 3/8	93 7/8	95 1/4	95 3/16	95 3/4	97 7/8	98 5/8	99 15/16	101 1/2	101 1/8	99 3/4	99 1/8	100 3/4	102 1/8	..	98 1/8
February...	92 13/16	94 3/16	95 13/16	95 9/16	96 1/4	98 1/8	98 15/16	99 7/8	102 1/4	101 1/8	99 1/4	100 1/8	100 3/4	102 3/8	..	99
March.....	93	94 3/16	96 7/16	95 1/4	96 3/4	97 7/8	99 3/4	100 7/8	102 1/8	101 9/10	97 3/8	100 7/10	101 3/8	101 1/8	100 5/8	97 1/8
April	93 1/2	94 1/16	95 3/8	94 13/16	98 1/8	98 5/8	100 13/16	101 5/8	102 3/8	102 1/8	96 1/4	100 3/8	102 3/8	101	100 1/16	98 1/2
May.....	94	96	94 1/4	96 3/16	98 3/4	99 1/2	102 1/16	102	101 7/8	101 1/2	99 1/4	101 3/8	103 1/8	101 1/8	99 1/4	99
June	93	94 1/4	94 1/2	95 7/8	97 1/4	98 3/8	100 3/8	100 1/4	100 1/2	100 1/16	99 3/4	100 9/10	101 5/8	100 1/4	99 9/16	98 1/8
July.....	94 1/4	95 1/4	94 1/2	95 11/16	97 7/8	98 3/8	101 1/8	99 13/16	99 13/16	100 1/8	99 7/8	101 3/10	101 3/8	100 1/8	99 9/16	98 3/8
August	94 3/4	96 7/16	95 1/8	94 13/16	97 3/4	97 1/2	100 1/4	99 3/4	99 7/8	100 3/8	100	101 1/10	101 1/2	100 1/4	99 3/8	98 1/10
September..	94 3/8	95 7/8	95 1/2	94 13/16	97 3/4	97 3/4	99 1/8	99 7/8	100 5/8	101 1/8	100 1/8	100 9/10	101 3/10	100 3/8	98	97
October....	94 3/16	95 7/16	95 3/4	94 1/4	98	98 9/16	98 15/16	101 3/16	101 1/4	100 9/10	100 3/8	100 1/8	102 3/8	100 3/8	97 1/4	97
November..	94 5/8	95 3/4	96 11/16	95 11/16	98 1/4	99 15/16	100 1/4	102 1/16	101 11/16	100 1/2	100 1/2	101 3/8	103 1/8	101	97	97
December..	93 7/8	94	95 3/16	94 3/8	97 3/8	98 3/4	99 5/16	100 13/16	100 1/2	99 1/8	100	100 1/2	101 7/10	99 3/8	96 7/8	97 1/8
Average for the Year..	93 3/4	95	95 3/8	95 3/16	97 1/2	98 3/8	100	100 1/2	101 3/16	101	99 1/3	100 1/8	101 1/4	101	..	98

AVERAGE MINIMUM RATE PER CENT *of* DISCOUNT CHARGED *by the* BANK *of* ENGLAND, *in* EACH MONTH *in* EACH YEAR *from 1875 to 1889.*

MONTHS.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	MONTHS.
January....	4½	4⅝	2	3¼	4½	3	3 6/16	5 3/16	4¾	3	5	3⅜	5	3½	4 1/10	January.
February...	3⅛	4	2	2	3	3	3¼	5 1/16	3¾	3 1/16	5	2⅞	4	2⅝	3	February.
March.....	3½	3⅞	2	2⅛	2⅜	3	3	4	3	3 6/16	3 8/32	2	3½	2⅛	3	March.
April	3½	2⅞	2	3	2⅛	3	3	3	3	2½	3½	2	2⅜	2	2⅜	April.
May.....	3½	2	2⅞	3	2	3	2½	3	3 1/16	2½	2 3/32	2⅛	2	2⅜	2½	May.
June.....	3½	2	3	2½	2	2¾	2½	3	4	2⅓	2	2⅜	2	2⅜	2½	June.
July	3	2	2¼	3½	2	2½	2½	3	4	2	2	2½	2	2½	2½	July.
August.....	2¼	2	2⅛	4⅝	2	2½	2 1/16	3 1/16	4	2	2	2⅜	2⅘	2⅛	3	August.
September..	2	2	3	5	2	2½	4	4 7/16	3 1/16	2	2	3½	4	3⅜	4 1/10	September.
October....	3⅛	2	4½	5½	2	2½	3 3/16	5	3	2⅜	2	3⅜	4	5	5	October.
November..	3½	2	4⅞	5⅝	2⅞	2½	5	5	3	4⅛	2 1/30	4	4	5	5	November.
December..	3	2	4	5	3	2⅞	5	5	3	5	3 1/31	4½	4	5	5	December.
Average for the Year..	3¼	2⅝	2⅞	3¾	2⅜	2¾	3½	4⅛	3 9/16	2 9/20	3	3	3⅕	3⅛	3½	Average for the Year.

LIFE AND ANNUITY

TABLE (1), being a SUMMARY *of the* INCOME *and Trade during the Year*

ORDINARY LIFE

INCOME.

NAME.	Annual Premium.	Money Received during the Year for Annuities.	Received for Interest (Less Tax).	Increase in Value of Investment.	Miscellaneous Receipts.	Total Income.
	£	£	£	£	£	£
Alliance	147,063	..	64,276	..	80	211,419
Argus (two years)	16	..	6,422	50,151	..	56,589
Atlas	94,668	1,734	58,808	5,090	39	160,339
Blue Ribbon (Limited)	15,070	..	713	812	5	16,600
British Empire	190,654	5,027	50,885	..	..	246,566
British Equitable	148,278	..	49,847	..	429	198,554
Briton Medical and General	48,596	..	11,071	..	6,185	65,852
Caledonian	105,402	23,590	33,934	..	76	163,002
Church of England	64,148	..	27,794	..	28	91,970
City of Glasgow	163,863	30,830	65,446	11,599	98	271,836
Clergy Mutual	231,385	..	136,794	35	306	368,520
Clerical, Medical, & General	220,002	..	111,320	422	360	332,104
Commercial Union (Limited)	132,350	2,654	46,282	..	271	181,557
Co-operative (Limited)	964	..	37	..	221	1,222
Crown	163,243	2,566	83,432	813	407	250,461
Customs' Fund	11,665	1,223	20,442	..	2,548	35,878
Eagle	185,562	..	124,544	7,742	..	317,848
Economic	218,598	..	140,329	6,100	81	365,108
Edinburgh	210,491	28,480	91,546	1,284	117	331,918
English and Scottish Law	135,266	22,543	63,955	4,119	93	225,976
Equitable	143.010	..	165,189	25,177	120	333,496
Equity and Law	165,581	13,289	67,871	8,115	96	254,952
Friends' Provident	138,353	20,843	79,734	..	..	238,930
General	141,316	9,279	37,684	..	..	188,279
Gresham	602,035	138,871	*169,198	16,507	178	926,789
Guardian	183,253	23,699	93,814	45	..	300,811
Hand-in-Hand	152,411	5,783	†93,513	24,958	9,715	286,380
Imperial Life	106,737	2,472	65,476	34	258	174,977
Itinerant Methodist Preachrs'	10,426	..	10,128	14,896	3,135	38,585
Lancashire	83,818	..	30,711	..	..	114,529
Law Life	212,180	..	207,513	622	82	420,397
Law Property	834	..	92	..	2,933	3,859
Law Union	76,368	9,170	37,078	3,064	50	125,730
Legal and General	150,858	32,215	88,848	14	..	271,935
Life Association of Scotland	358,636	56,914	131,081	..	398	547,029
L'pool and London and Globe	224,590	94,275	159,409	..	133	478,407
London Amicable (Limited)	8,109	2,045	736	367	1	11,258
London and Lancashire	140,761	..	22,377	..	46	163,184
London Assurance	147,544	..	78,335	5,860	..	231.739
London, Ed. & Glasgow (Ld.)	112,148	597	1,803	..	31	114,579
London Life	326,500	..	159,347	2,064	30	487,941

* Less Income Tax under appeal. † Including Interest, Fire Fund. Excess of net fire premiums over losses

ASSURANCE COMPANIES, 1889.

EXPENDITURE *of 104* COMPANIES *deposited with the Board of ending December 31st, 1889.*

COMPANIES.

EXPENDITURE.

	Life Claims.	Cash Bonuses and Reduction Premiums.	Paid for Surrenders.	Paid to Annuitants.	Agents' Commission.	Expenses of Management.	Miscellaneous.	Total Expenditure.	Cost per £ for Expenses and Commission on Annual Premiums.
	£	£	£	£	£	£	£	£	£ s. d.
1	114,083	..	8,091	160	8,751	11,290	2,081	144,456	0 2 9
2	1,086	23,488	..	80	51	3,044	92,920	120,669	..
3	120,052	4,035	4,969	1,638	4,964	11,880	1,893	149,431	0 3 7
4	1,948	..	147	..	2,586	7,243	1,741	13,665	0 13 0
5	96,266	18,460	13,714	4,312	18,490	30,159	..	181,401	0 5 1
6	90,739	..	14,538	41	8,803	31,166	3,417	148,704	0 5 4
7	44,872	..	419	104	..	10,322	..	55,717	0 4 3
8	57,643	..	6,903	6,645	6,212	12,565	1,077	91,045	0 3 7
9	75,301	3,951	2,185	1,434	2,077	8,452	4,460	97,860	0 3 3
10	111,535	242	10,118	10,997	7,931	15,522	10,232	166,577	0 2 10
11	228,063	56,347	4,563	1,018	..	13,930	249	304,170	0 1 2
12	153,402	11,283	26,481	2,350	9,226	17,669	7,500	227,911	0 2 5
13	67,525	29,959	7,908	2,108	5,833	12,738	30,238	156,309	0 2 11
14	..	..	..	..	58	300	..	358	0 7 5
15	129,885	..	17,215	1,695	7,519	12,826	19,487	188,627	0 2 6
16	31,806	..	318	2,014	..	1,468	101	35,707	0 2 6
17	278,219	26,629	15,527	2,690	7,390	18,122	42,318	390,895	0 2 9
18	282,278	6,872	11,952	552	6,929	19,460	3,350	331,393	0 2 5
19	141,557	..	15,872	20,826	9,468	19,974	9,000	216,697	0 2 10
20	103,992	1,118	8,576	8,320	8,939	17,894	7,000	155,839	0 3 11
21	277,375	3,713	18,829	827	..	9,802	..	310,546	0 1 4
22	145,325	5,625	9,351	18,357	7,306	9,512	11,000	206,476	0 2 0
23	85,244	30,986	2,805	18,733	5,027	6,160	99	149,054	0 1 7
24	83,049	3,733	7,999	3,087	8,341	19,882	25,821	151,912	0 4 0
25	419,743	6,812	62,868	108,296	49,299	102,224	19,285	768,527	0 5 0
26	165,275	1,747	15,058	3,511	8,422	16,140	..	210,153	0 2 8
27	97,561	73,895	5,986	11,188	3,336	12,880	..	204,846	0 2 1
28	121,620	958	6,001	8,128	4,674	‡13,666	9,484	164,531	0 3 5
29	..	..	..	18,230	..	287	..	18,517	0 0 7
30	49,300	6,003	5,549	343	3,838	7,324	..	72,357	0 2 8
31	343,491	6,408	8,822	..	9,006	11,173	49,824	428,724	0 1 10
32	3,538	..	..	144	9	137	..	3,828	0 3 6
33	49,557	446	7,759	14,715	3,615	7,661	..	83,753	0 3 0
34	140,697	2,567	5,671	6,812	8,219	13,942	13,500	191,408	0 2 11
35	291,449	39,009	18,543	26,251	14,064	43,861	14,046	447,223	0 3 2
36	226,982	..	12,793	85,317	10,006	15,866	86,100	437,064	0 2 4
37	..	..	..	893	48	1,655	..	2,596	0 4 2
38	52,548	7,296	8,717	80	13,334	§22,792	2,000	106,767	0 5 1
39	114,418	7,602	6,615	5,880	5,176	10,325	17,309	167,325	0 2 1
40	56,782	..	305	606	22,511	27,185	..	107,389	0 8 10
41	140,499	218,307	12,997	..	..	13,796	..	385,599	0 0 10

and expenses. ‡ Including £1,766 (net) expenses *re* "Argus." § Including arrears of collecting taxes.

LIFE AND ANNUITY

TABLE (1), being a SUMMARY *of the* INCOME *and Trade during the Year*

ORDINARY LIFE

INCOME.

NAME.	Annual Premium.	Money Received during the Year for Annuities.	Received for Interest (Less Tax).	Increase in Value of Investment.	Miscellaneous Receipts.	Total Income.	
	£	£	£	£	£	£	
Marine and General	*52,310	..	20,341	..	..	72,651	42
Methodist and General (Ld.)	322	..	33	..	1	356	43
Metropolitan	159,917	..	74,634	6,636	27	241,214	44
Midland Counties	5,080	2,764	1,822	..	4	9,670	45
Mutual	80,406	..	49,324	..	50	129,780	46
National Guardian (Limited)	88	..	482	..	..	570	47
National Life	72,785	10,982	33,163	3,770	103	120,803	48
National of Ireland	28,232	2,484	11,941	1,082	4	43,743	49
Natl. Pension Fd. for Nurses.	5,841	7,656	460	..	..	13,957	50
National Provident	334,660	10,006	179,057	..	439	524,162	51
North British and Mercantile	361,512	164,616	181,416	..	121	707,665	52
Northern	203,082	9,602	87,649	..	..	300,333	53
Norwich Union Life	148,680	..	75,940	1,516	103	226,239	54
Patriotic of Ireland.....	13,594	..	4,227	..	..	17,821	55
Pelican	94,255	..	54,332	14,250	..	162,837	56
Positive (Limited)	50,995	..	16,194	1,897	31	69,117	57
Provident	228,817	..	91,288	191	..	320,296	58
Provident Clerks'.....	117,383	2,525	58,261	..	300	178,469	59
Provincial.....	36,022	496	14,044	1,146	38	51,746	60
Prudential(Ld.)(Ord.Branch)	718,848	113,319	86,242	..	..	918,409	61
Queen	85,369	7,600	26,292	..	..	119,261	62
Refuge (Limited) (Ord. Br.)..	13,794	..	475	..	..	14,269	63
Reliance	87,124	1,150	26,377	..	273	114,924	64
Rock	117,645	16,541	115,812	..	36	250,034	65
Royal.....	255,659	9,921	134,350	..	..	399,930	66
Royal Exchange	138,956	30,798	82,057	..	..	251,811	67
Sceptre (Limited)	53,921	..	14,977	..	33	68,931	68
Scottish Amicable	210,817	12,773	121,545	..	95	345,230	69
Scottish Economic (Limited)	7,074	1,206	205	1,123	7	9,615	70
Scottish Equitable	272,750	..	117,208	4,831	684	395,473	71
Scottish Imperial.....	52,011	..	10,800	1,649	163	64,623	72
Scottish Life (Limited)	24,165	6,526	3,519	..	10	34,220	73
Scottish Metropolitan.....	28,694	92	4,100	..	28	32,914	74
Scottish Provident	487,555	66,435	†296,745	..	698	851,433	75
Scottish Provincial	136,872	1,610	60,471	..	..	198,953	76
Scottish Temperance (Ld.)..	23,890	60	1,103	..	..	25,053	77
Scottish Union and National.	286,521	2,090	111,906	..	..	400,517	78
Scottish Widows' Fund	804,885	16,869	398,542	..	..	1,220,296	79
Sovereign	27,948	..	8,529	..	409	36,886	80
Standard	654,822	54,987	268,743	..	2,103	980,655	81
Star	297,460	9,797	105,985	..	215	413,457	82

* Including insurance of effects. † Including accrued. ‡ Including £7,230 Pension charge.

ASSURANCE COMPANIES, 1889.

EXPENDITURE *of 104* COMPANIES *deposited with the Board of ending December 31st, 1889.*

COMPANIES.—CON.

EXPENDITURE.

	Life Claims.	Cash Bonuses and Reduction Premiums.	Paid for Surrenders.	Paid to Annuitants.	Agents' Commission.	Expenses of Management.	Miscellaneous.	Total Expenditure.	Cost per £ for Expenses and Commission on Annual Premiums.		
	£	£	£	£	£	£	£	£	£	s.	d.
42	24,217	..	3,275	3,513	3,608	12,816	..	47,429	0	6	3
43	300	..	7	..	78	176	..	561	0	15	9
44	123,499	75,101	14,523	..	..	9,448	..	222,571	0	1	2
45	1,578	..	364	1,418	289	494	..	4,143	0	3	1
46	85,130	3,237	8,211	..	3,642	11,665	..	111,885	0	3	9
47	127	..	..	..	..	52	..	179	0	11	9
48	74,271	17,572	7,189	4,880	1,853	10,203	..	115,968	0	3	4
49	33,691	..	817	9,082	609	3,235	1,982	49,416	0	2	8
50	..	..	38	46	..	762	..	846	0	2	7
51	316,593	115,823	24,538	3,110	11,691	‡36,324	..	508,079	0	2	10
52	340,347	2,083	22,832	73,257	16,887	33,689	587	489,682	0	2	9
53	134,231	..	19,698	9,278	9,820	10,953	..	183,980	0	2	0
54	215,488	3,147	7,556	4,807	9,712	18,749	..	259,459	0	3	10
55	12,844	..	956	..	440	1,191	..	15,431	0	2	5
56	98,820	524	7,332	12	4,141	8,150	16,712	137,691	0	2	7
57	27,016	286	3,899	75	2,115	7,781	4,705	45,877	0	3	10
58	198,637	24,380	15,480	30	11,307	22,000	10,153	281,987	0	2	10
59	88,379	70,438	9,474	15,574	4,773	13,972	..	202,610	0	3	2
60	26,574	..	2,278	732	2,089	4,987	937	37,597	0	3	11
61	210,028	..	13,689	28,887	51,807	20,078	1,000	324,889	0	2	0
62	40,626	2,456	5,112	2,397	4,556	8,988	22,693	86,828	0	3	2
63	4,147	..	116	..	1,009	370	..	5,642	0	2	0
64	64,478	7,752	5,323	1,002	4,449	15,328	..	98,332	0	4	6
65	126,344	..	6,901	2,711	4,957	16,970	86,269	244,152	0	3	9
66	208,035	207	18,495	22,705	12,183	17,385	..	279,010	0	2	4
67	138,915	12,158	12,092	10,234	5,727	13,153	12	192,291	0	2	8
68	20,596	..	2,361	..	4,348	5,366	629	33,300	0	3	7
69	173,402	357	13,876	8,679	6,179	20,072	40,000	262,565	0	2	6
70	4,054	..	417	330	1,339	6,903	..	13,043	1	3	3
71	215,499	15,519	16,764	..	10,316	27,943	..	286,041	0	2	9
72	26,190	736	2,557	204	3,659	7,000	4,375	44,721	0	4	1
73	4,473	..	540	1,732	1,041	4,130	..	11,916	0	4	3
74	7,170	..	1,164	1,238	1,689	6,902	1,440	19,603	0	6	0
75	328,531	..	32,560	26,210	§13,664	§49,255	..	450,220	0	2	7
76	126,871	4,448	11,238	3,205	‖10,175	12,770	..	168,707	0	3	4
77	1,694	1,022	309	74	1,222	5,820	649	10,790	0	5	10
78	232,605	3,717	11,921	9,825	12,582	27,050	..	297,700	0	2	9
79	621,686	47,782	72,183	13,305	23,301	64,865	50,968	894,090	0	2	2
80	35,677	..	..	11,345	535	2,403	..	49,960	0	2	1
81	589,182	..	40,583	41,547	30,531	80,176	25,000	807,019	0	3	4
82	150,980	7,470	13,742	8,199	24,559	21,480	250	226,680	0	3	1

§ Including outstanding commission and expenses. ‖ Including outstanding commission.

LIFE AND ANNUITY

TABLE (1), being a SUMMARY *of the* INCOME *and Trade during the Year*

ORDINARY LIFE

INCOME.

NAME.	Annual Premium.	Money Received during the Year for Annuities.	Received for Interest (Less Tax).	Increase in Value of Investment.	Miscellaneous Receipts.	Total Income.	
	£	£	£	£	£	£	
Sun Life	200,385	..	88,995	9,576	111	299,067	83
Union (six months)	73,100	..	25,831	..	20	98,951	84
United Kent Life (Limited)	25,968	4,047	21,990	..	18	52,023	85
United Kingdom Temp. & Gen.	332,577	8,924	169,231	..	324	511,056	86
Universal	98,902	..	46,883	..	..	145,785	87
University	46,069	..	41,226	2,023	14	89,332	88
Victoria (Limited)	8,720	..	1,666	..	47	10,433	89
Wesleyan and General	154,936	..	4,072	..	80	159,088	90
Western Counties & London	9,109	..	2,826	..	..	11,935	91
Westminster and General	50,049	..	21,087	..	78	71,214	92
West of England	78,531	..	33,028	..	8,500	120,059	93
Whittington	53,054	1,209	7,238	..	56	61,557	94
Yorkshire	43,088	2,603	23,200	..	..	68,891	95
Totals	13,928,001	1,107,787	6,325,678	239,580	43,773	21,644,819	

INDUSTRIAL

Industrial business is to some extent transacted

British Legal (Limited)	44,520	..	2,544	..	..	47,064	96
British Workman's (Ld.)	207,576	..	4,651	..	84	212,311	97
Industrial of Gt. Britain (Ld.)	14,943	..	..	..	..	14,943	98
Leicester (Limited)	..	..	..	..	..	..	99
London & Manchester (Ld.)	45,026	..	682	..	124	45,832	100
Pearl (Limited)	245,489	175	7,215	..	182	253,061	101
Prudential (Ld.) (Indl. Br.)	3,256,346	..	197,145	..	..	3,453,491	102
Refuge (Limited) Indl. Br.)	481,499	..	6,275	..	..	487,774	103
United Brothers (Limited)	2,702	..	..	..	2,486	5,188	104
United Kingdom (Limited)	56,029	..	887	..	67	56,983	105
Yorkshire Provident (Ld.)	6,308	..	20	..	886	7,214	106
Totals	4,360,438	175	219,419	..	3,829	4,583,861	

ASSURANCE COMPANIES, 1889.

EXPENDITURE *of 104* COMPANIES *deposited with the Board of ending December 31st, 1889.*

COMPANIES.—CON.

EXPENDITURE.

	Life Claims.	Cash Bonuses and Reduction Premiums.	Paid for Surrenders.	Paid to Annuitants.	Agents' Commission.	Expenses of Management.	Miscellaneous.	Total Expenditure.	Cost per £ for Expenses and Commission on Annual Premiums.
	£	£	£	£	£	£	£	£	£ s. d.
83	116,827	2,613	16,249	707	12,352	29,146	13,440	191,334	0 4 1
84	48,617	1,394	3,267	..	6,043	6,956	10	66,287	0 3 6
85	28,406	..	1,348	3,937	1,536	2,288	7,098	44,613	0 3 0
86	189,120	14,240	30,084	4,983	22,633	18,955	..	280,015	0 2 6
87	86,311	28,418	2,540	120	3,370	9,176	22,384	152,319	0 2 6
88	95,850	2,651	5,883	..	515	6,095	1,495	112,489	0 2 10
89	3,551	..	261	..	991	1,666	..	6,469	0 6 1
90	63,946	..	3,032	905	42,368	39,054	..	149,305	0 10 6
91	5,904	..	315	..	341	1,275	..	7,835	0 3 6
92	53,410	..	3,714	4,422	2,897	6,233	1,252	71,928	0 3 7
93	115,385	299	3,561	591	4,771	7,955	..	132,562	0 3 3
94	32,838	..	1,886	1,119	4,825	8,516	3,375	52,559	0 5 0
95	33,786	123	1,452	8,517	2,265	3,842	..	49,985	0 2 9
	11,001,581	1,063,444	888,728	743,326	709,247	1,424,505	804,947	16,635,778	0 3 10

COMPANIES.

by the Companies classed as Ordinary.

96	19,203	..	..	..	11,388	8,779	259	39,629	0 9 0
97	83,075	..	4,170	..	49,826	58,889	531	196,491	0 10 5
98	5,833	..	..	..	3,030	5,186	400	14,449	0 11 0
99	..	..	..	..	..	..	..	..	..
100	16,392	..	308	27	9,695	13,243	476	40,141	0 12 0
101	94,116	7	92	19	56,251	69,092	484	220,061	0 10 2
102	1,231,186	..	4,813	..	923,653	381,107	50,000	2,590,759	0 8 0
103	189,076	..	..	..	108,374	143,340	2,594	443,384	0 10 5
104	919	..	..	..	893	2,573	..	4,385	1 5 8
105	21,939	39	112	..	14,130	19,673	714	56,607	0 12 0
106	1,922	..	..	10	1,815	2,359	..	6,106	0 13 2
	1,663,661	46	9,495	56	1,179,055	704,241	55,458	3,612,012	0 8 8

LIFE AND ANNUITY

TABLE (2), showing a STATEMENT *of* LIABILITIES *and* ASSETS *with the Board of Trade during the*

LIABILITIES. ORDINARY LIFE

NAME.	Share Capital Moneys.	Life and Annuity Funds.	Fire Funds.	Marine Funds.	Reserve Funds and Profit and Loss Balances.	Outstanding Claims, Accounts, &c.	Total Liabilities.	
	£	£	£	£	£	£	£	
Alliance	550,000	1,607,444	641,006	..	82,500	72,647	2,953,597	1
Argus	39,913	..	..	..	..	8,249	48,162	2
Atlas	144,000	1,397,288	200,000	..	80,659	59,113	1,881,060	3
Blue Ribbon (Limited)	20,000	12,211	..	..	..	15,860	48,071	4
British Empire	..	1,277,267	..	..	..	20,137	1,297,404	5
British Equitable	53,072	1,203,348	..	..	..	11,641	1,268,061	6
Briton Medical and Genl. (Ld.)	78,583	211,518	..	..	..	40,130	330,231	7
Caledonian	90,000	915,614	284,694	..	..	27,205	1,317,513	8
Church of England	40,000	656,803	26,987	..	20,000	17,253	761,043	9
City of Glasgow	60,000	1,602,635	..	..	..	25,987	1,688,622	10
Clergy Mutual	..	3,470,184	..	..	..	72,637	3,542,821	11
Clerical, Medical, and General	50,000	2,808,935	..	..	..	40,457	2,899,392	12
Commercial Union (Limited)	250,000	1,095,313	708,679	264,824	272,926	135,570	2,727,312	13
Co-operative (Limited)	12,325	1,511	8,615	..	4,017	2,146	28,614	14
Crown	314,880	1,670,127	..	..	..	35,876	2,020,883	15
Customs' Fund	..	490,234	..	..	..	119,059	609,293	16
Eagle	167,868	2,030,759	..	..	..	130,754	2,329,381	17
Economic	..	3,596,468	..	..	..	79,084	3,675,552	18
Edinburgh	110,528	2,226,999	..	..	..	28,718	2,366,245	19
English and Scottish Law	77,242	1,419,048	..	..	..	24,481	1,520,771	20
Equitable	..	4,354,835	..	..	..	33,384	4,388,219	21
Equity and Law	60,000	2,100,339	..	..	..	21,074	2,181,413	22
Friends' Provident	..	2,010,798	..	..	..	17,255	2,028,053	23
General	50,000	986,524	42,230	..	32,260	30,642	1,141,656	24
Gresham	21,712	4,151,252	..	..	..	90,177	4,263,141	25
Guardian	1,000,000	2,335,816	652,220	..	62,046	94,851	4,144,933	26
Hand-in-Hand	..	2,362,266	..	..	..	30,503	2,392,769	27
Imperial Life	192,686	1,386,221	..	..	..	35,895	1,614,802	28
Itinerant Methodist Preachers'	..	382,201	..	..	..	..	382,201	29
Lancashire	272,986	801,443	380,000	..	7,240	119,704	1,581,373	30
Law Life	1,048,597	4,084,619	..	..	..	58,564	5,191,780	31
Law Property	46,890	..	..	..	..	1,736	48,626	32
Law Union	60,000	866,280	64,488	..	35,375	10,702	1,038,845	33
Legal and General	190,924	2,043,044	..	..	..	37,359	2,271,327	34
Life Association of Scotland	87,500	3,323,098	..	..	..	78,895	3,489,493	35
L'pool and London and Globe	245,640	3,898,799	590,000	..	1,909,885	1,484,567	8,128,891	36
London Amicable (Limited)	11,450	30,088	..	..	..	1,562	43,050	37
London and Lancashire	24,549	566,700	..	..	..	10,733	601,982	38
London Assurance	448,275	1,899,682	490,400	186,442	418,937	81,995	3,525,731	39
L'don, Edinboro',&Glasgow(Ld)	111,994	49,567	..	..	..	127,291	288,852	40
London Life	..	4,047,455	..	..	..	43,524	4,090,979	41
Marine and General	..	534,970	..	..	..	5,015	539,985	42
Methodist and General (Ld.)	..	943	..	..	..	241	1,184	43
Metropolitan	..	1,864,772	..	..	..	24,616	1,889,388	44
Midland Counties	35,000	50,312	9,606	..	27,250	796	122,964	45
Mutual	..	1,197,898	..	..	..	2,224	1,199,622	46
National Guardian (Limited)	9,992	8,662	..	..	4,271	25,847	48,772	47
National Life	..	829,779	..	..	..	16,962	846,741	48
National of Ireland	100,000	290,964	81,040	..	36,344	17,517	525,865	49
National Pension Fund	..	13,111	..	..	..	27,395	40,506	50
National Provident	..	4,337,260	..	..	69,710	30,229	4,437,199	51
North British and Mercantile	625,000	4,672,998	2017544	..	..	274,300	7,589,842	52
Northern	300,000	2,219,479	930,194	..	120,299	120,561	3,690,533	53
Norwich Union Life	..	1,825,186	..	..	..	82,419	1,907,555	54
Patriotic of Ireland	121,985	109,417	37,774	..	8,357	13,881	291,414	55
Pelican	159,264	1,162,794	..	..	..	75,693	1,397,751	56
Positive (Limited)	69,775	343,621	..	..	13,198	8,879	435,473	57
Provident	50,065	2,404,544	..	..	..	146,482	2,601,091	58
Provident Clerks'	..	1,449,483	..	..	..	16,831	1,466,314	59

* Two companies appear in each

ASSURANCE COMPANIES, 1889.

*of 104** LIFE *and* ANNUITY ASSURANCE COMPANIES *deposited Year ending December 31st, 1889.*

COMPANIES. ASSETS.

	Loans on Mortgages.	Loans on Policies.	Loans on Rate's, British, Indian, Colonial, and Foreign Government Securities, and on Debentures and Shares.	Land, House Property, Ground Rents, Life Interests and Reversions, and Personal Security.	Agents' Balances, Outstanding Premiums, Interest, Cash, Stamps, &c. and Miscellaneous.	Total Assets.	Deficiencies, Preliminary Expenses, &c.	VALUATION ACCOUNT. Surplus of Assets over Liabilities, at date of last Valuation.	VALUATION ACCOUNT. Average Rate of Interest realised by the Companies from the Reinvestment of their Funds.
	£	£	£	£	£	£	£	£	£ s. d.
1	347,542	53,328	2,217,081	171,933	163,713	2,953,597	..	203,510	4 2 8
2	2,831	..	34,605	35	10,691	48,162	..	....	....
3	466,343	62,772	1,152,886	87,171	111,888	1,881,060	..	282,778	4 7 10
4	..	57	22,961	1,274	8,326	32,618	15,453	....	....
5	573,579	89,289	234,412	325,758	74,366	1,297,404	..	66,884	4 4 0
6	212,163	60,526	79,383	846,569	69,420	1,268,061	..	65,877	4 7 2
7	108,524	35,705	138,907	91,757	15,338	330,231	..	....	....
8	484,847	52,500	302,466	330,442	147,258	1,317,513	..	116,584	4 2 8
9	272,176	45,974	352,590	36,992	53,311	761,043	..	11,135	4 3 1
10	1,012,874	78,622	212,799	237,695	146,632	1,688,622	..	159,154	4 8 0
11	1,813,442	261,915	1,357,165	5,069	105,230	3,542,821	..	573,420	4 2 8
12	508,973	116,529	2,007,464	25,634	240,792	2,899,392	..	433,173	4 4 6
13	771,410	36,880	1,078,955	317,892	522,175	2,727,312	..	158,760	4 7 5
14	2,800	..	6,448	2,350	17,016	28,614	..	....	....
15	913,479	72,830	802,311	146,130	86,583	2,020,833	..	157,500	4 7 3
16	489,447	..	91,127	7,000	21,719	609,293	..	35,679	4 4 3
17	2,334,368	175,047	158,980	193,499	67,487	2,929,381	..	168,165	4 11 10
18	951,323	196,110	2,250,311	133,612	144,196	3,675,552	..	487,237	4 6 3
19	1,005,230	121,800	873,787	174,733	190,695	2,366,245	..	315,497	4 4 2
20	534,894	65,274	547,029	113,752	259,822	1,520,771	..	123,334	4 9 5
21	2,208,294	194,418	1,924,355	..	61,152	4,388,219	..	....	....
22	1,178,831	37,058	323,510	580,386	61,628	2,181,413	..	423,148	4 10 2
23	832,992	180,805	918,604	12,329	88,323	2,028,053	..	310,491	4 7 11
24	299,081	49,802	479,211	212,138	101,424	1,141,656	..	107,606	4 7 5
25	248,436	338,295	2,768,943	663,768	241,899	4,261,341	1,800	93,170	4 2 9
26	1,721,044	36,511	1,930,747	235,996	220,635	4,144,933	..	231,918	4 8 7
27	883,019	96,217	1,250,660	112,534	50,339	2,392,769	..	395,188	4 7 0
28	764,913	90,370	525,193	27,031	207,295	1,614,802	..	107,991	4 6 6
29	..	..	288,374	16,800	77,527	382,201	..	....	....
30	522,157	31,070	646,913	74,072	307,161	1,581,373	..	101,812	4 7 4
31	3,137,193	115,202	1,762,675	93,023	83,687	5,191,780	..	575,370	4 4 11
32	2,988	..	..	47	2,917	5,952	42,674	....	3 5 7
33	557,244	23,630	63,421	336,179	58,371	1,038,845	..	94,994	4 6 2
34	1,631,465	85,988	331,799	226,786	45,289	2,271,327	..	243,938	4 4 2
35	1,198,768	298,791	1,466,780	217,547	307,607	3,489,493	..	216,580	4 6 6
36	1,809,560	153,324	4,147,625	1,253,308	765,074	8,128,891	..	210,128	4 2 2
37	4,193	..	25,993	4,831	6,994	42,011	1,089	....	....
38	89,339	62,074	332,791	54,202	63,576	601,982	..	54,105	3 18 5
39	1,131,608	49,471	2,092,109	45,417	207,126	3,525,731	..	352,489	4 8 3
40	5,946	..	46,651	13,820	22,251	88,668	200,184	....	....
41	1,570,684	292,297	2,151,293	12,159	64,546	4,090,979	..	92,306	4 1 5
42	46,388	20,225	363,059	54,778	55,535	539,985	..	72,176	4 10 6
43	780	..	..	..	366	1,146	38	....	....
44	232,016	137,127	1,449,431	28,621	42,193	1,889,388	..	8,324	4 3 3
45	71,106	1,716	22,404	16,647	11,091	122,964	..	4,848	4 3 11
46	614,267	103,866	209,510	248,099	23,880	1,199,622	..	463,942	4 7 10
47	15,818	..	..	32,319	640	48,772	..	6,200	5 0 0
48	487,122	65,354	58,796	204,738	30,731	846,741	..	313,481	4 14 2
49	163,851	27,024	251,492	46,092	37,406	525,865	..	10,476	4 3 4
50	..	..	38,313	75	2,118	40,506	..	....	....
51	2,523,774	388,918	1,089,744	312,457	122,306	4,437,199	..	724,435	4 3 0
52	3,014,205	187,344	3,120,919	658,175	609,199	7,589,842	..	405,405	4 5 10
53	480,841	108,637	2,477,479	382,964	240,612	3,690,583	..	236,039	4 5 0
54	1,322,142	92,977	348,504	80,741	63,191	1,907,555	..	209,907	4 1 2
55	136,164	5,777	114,163	6,196	29,114	291,414	..	7,096	4 3 5
56	517,856	35,402	760,774	57,576	26,643	1,397,751	..	183,284	4 3 5
57	16,646	25,967	359,258	20,522	13,080	435,473	..	57,428	3 8 8
58	1,388,276	216,134	634,126	203,858	158,697	2,601,091	..	451,123	4 3 7
59	330,114	108,859	939,457	46,863	41, 21	1,466,314	..	193,614	4 4 11

class as ordinary and industrial.

LIFE AND ANNUITY

TABLE (2), showing a STATEMENT *of* LIABILITIES *and* ASSETS *with the Board of Trade during the*

LIABILITIES. ORDINARY LIFE

NAME.	Share Capital Moneys.	Life and Annuity Funds.	Fire Funds.	Marine Funds.	Reserve Funds and Profit and Loss Balances.	Outstanding Claims, Accounts, &c.	Total Liabilities.	
	£	£	£	£	£	£	£	
Provincial	32,403	336,650	..	..	1,802	1,756	372,611	60
Prudential (Limited) (Ord. Br.)	..	2,818,562	..	..	..	1,513	2,820,075	61
Queen	180,085	650,555	200,000	..	371,687	65,698	1,467,975	62
Refuge (Limited) (Ord. Br.)	..	18,831	..	..	..	..	18,831	63
Reliance	..	677,970	..	..	..	41,950	719,920	64
Rock	1,022,796	1,876.130	..	..	..	26,449	2,925,375	65
Royal	289,545	3,443,073	750,000	..	1,625,315	183,516	6,291,449	66
Royal Exchange	689,220	2,089,112	231,480	136,903	728,864	86,962	3,962,541	67
Sceptre (Limited)	10,485	345,866	..	..	..	2,330	358,681	68
Scottish Amicable	..	2,949,487	..	..	..	83,135	3,032,622	69
Scottish Economic (Limited)	25,000	3,099	..	..	..	2,561	30,660	70
Scottish Equitable	..	3,087,193	..	..	..	82,351	3,169,544	71
Scottish Imperial	50,000	260,660	..	..	11,461	9,119	331.240	72
Scottish Life (Limited)	50,000	100,599	..	..	..	13,589	164,188	73
Scottish Metropolitan	24,000	91,900	..	..	..	591	116.491	74
Scottish Provident	..	6,481,469	..	..	..	131,046	6,612,515	75
Scottish Provincial	72,900	1,542,069	76,653	..	43,379	41,721	1,775,822	76
Scottish Temperance (Limited)	25,000	39,764	..	..	..	5,019	69,783	77
Scottish Union and National	300,000	2,882,229	115,345	..	204,801	109,225	3,611,600	78
Scottish Widows' Fund	..	9,929,644	..	..	..	233,316	10,162,960	79
Sovereign	74,605	431,255	..	..	..	72,987	578,847	80
Standard	120,000	6,632,122	..	..	..	238,191	6,990,313	81
Star	5,000	2,788,351	..	..	..	22,750	2,816,101	82
Sun Life	389,552	1,868,478	..	..	..	34,375	2,292,405	83
Union	30,000	1,257,465	785,539	..	24,873	52,443	2,150,320	84
United Kent Life (Limited)	139,257	381,523	..	..	..	9,607	530,387	85
United Kingdom Temp. & Genl.	..	4,411,908	..	..	..	50,803	4,462,711	86
Universal	67,908	1,024,328	..	..	..	32,989	1,125,225	87
University	29,900	904,977	..	..	..	37.385	972,262	88
Victoria (Limited)	..	46,429	..	..	..	3,576	50,005	89
Wesleyan and General	..	121,577	..	..	..	83,336	204,913	90
Western Counties and London	..	67,501	..	..	..	325	67,826	91
Westminster and General	31,051	473,670	..	..	..	26,039	530,760	92
West of England	210,000	858,687	58,000	..	5,558	42,752	1,174,997	93
Whittington	22,932	169,525	..	..	..	3,317	195,774	94
Yorkshire	50,000	587,575	245,000	..	5,742	12,961	901,278	95
Totals	11343334	154942559	9627494	588,169	6,228,756	6,112,988	188843300	

INDUSTRIAL

British Legal (Limited)	2 589	78,069	..	..	..	17	80,675	96
British Workman's (Limited)	5,406	106,717	..	..	..	..	112,123	97
Industrial of Great Britain (Ld.)	15,707	2,066	..	..	..	5,975	23,748	98
Leicester (Limited)	1,443	3	..	..	..	134	1,580	99
London and Manchester (Ld.)	5,018	27,576	..	..	..	760	33,354	100
Pearl (Limited)	3,092	207,092	..	..	..	344	210,528	101
Prudential (Ld.) (Indus. Br.)	200,000	6,272,560	..	..	..	9,372	6,481,932	102
Refuge (Limited) (Indus. Br.)	50,000	163,601	..	..	..	..	213,601	103
United Brothers (Limited)	4,128	..	..	..	..	465	4,593	104
United Kingdom (Limited)	1,483	20,402	..	..	..	555	22,440	105
Yorkshire Provident (Limited)	2,050	433	..	..	..	19	2,502	106
Totals	290,916	6,878,519	..	..	..	17,641	7,187,076	

ASSURANCE COMPANIES, 1889.

of 104 LIFE *and* ANNUITY ASSURANCE COMPANIES *deposited*

Year ending December 31st, 1889.

COMPANIES.—CON. ASSETS.

	Loans on Mortgages.	Loans on Policies.	Loans on Rates, British, Indian, Colonial, and Foreign Government Securities, and on Debentures and Shares.	Land, House Property, Ground Rents, Life Interests and Reversions, and Personal Security.	Agents' Balances, Outstanding Premiums, Interest, Cash, Stamps, &c., and Miscellaneous.	Total Assets.	Deficiencies, Preliminary Expenses, &c.	VALUATION ACCOUNT. Surplus of Assets over Liabilities, at date of last Valuation.	VALUATION ACCOUNT. Average Rate of Interest realised by the Companies from the Reinvestment of their Funds.
	£	£	£	£	£	£	£	£	£ s. d.
60	60,565	20,601	218,833	31,111	16,912	348,022	24,589	25,620	4 11 9
61	839,637	72,245	1,572,646	202,201	133,346	2,820,074	..	306,727	3 13 10
62	201,627	34,744	802,921	266,450	162,233	1,467,975	..	84,078	4 5 9
63	3,525	..	10,000	2,250	3,056	18,831	..	65,242	3 6 8
64	297,315	47,131	22,886	276,616	75,972	719,920	..	65,536	4 0 5
65	1,364,894	63,333	809,367	118,083	569,698	2,925,375	..	429,119	4 3 3
66	1,656,511	198,857	3,527,881	595,834	312,336	6,291,449	..	354,513	4 3 4
67	1,510,343	68,215	2,091,949	42,800	249,234	3,962,541	..	301,838	4 10 9
68	81,362	22,856	170,989	61,298	22,176	358,681	..	34,561	4 13 7
69	1,316,443	212,879	816,217	570,810	116,273	3,032,622	..	222,650	4 10 9
70	1,836	87	25,677	905	2,155	30,660	..	*2,682	4 17 5
71	1,901,887	224,967	425,205	382,080	235,405	3,169,544	..	329,456	4 6 9
72	56,850	16,369	111,542	125,879	20,600	331,240	..	26,987	3 11 1
73	70,587	4,436	40,409	24,296	24,460	164,188	..	5,504	4 1 0
74	68,351	2,517	14,739	16,187	14,697	116,491	..	4,196	4 7 4
75	4,631,760	413,365	757,766	318,615	496,009	6,612,515	..	1,051,035	4 5 2
76	232,758	108,213	1,072,816	73,469	289,066	1,755,822	..	147,350	4 7 0
77	19,895	271	20,900	3,647	25,070	69,782	..	4,235	4 11 5
78	2,010,496	103,668	634,187	273,794	589,455	3,611,600	..	300,310	4 7 6
79	7,747,136	781,082	770,292	207,798	656,652	10,162,960	..	1,514,519	4 2 1
80	42 591	16,644	118,891	334,512	66,209	578,847	..	....	....
81	4,469,546	357,242	1,000,278	420,891	742,356	6,990,313	..	487,315	4 6 2
82	722,248	183,486	1,470,035	301,706	138,626	2,816,101	..	408,912	4 7 6
83	379,834	66,638	1,580,715	149,812	115,406	2,292,405	..	256,090	4 5 10
84	1,082,723	61,662	841,442	67,527	96,966	2,150 320	..	192,213	4 8 6
85	436,461	15,813	43,330	20,001	14,782	530,387	..	46,185	4 6 1
86	1,098,759	373,376	1,527,231	1,355,198	108,147	4,462,711	..	1,055,092	4 5 1
87	278,969	32,160	727,735	36,331	50,030	1,125,225	..	235,030	4 6 0
88	436,739	48,342	397,228	64,574	25,379	972,262	..	201,862	4 7 2
89	8,250	1,202	33,850	3,440	3,263	50,005	..	4,760	3 16 4
90	122,987	12,316	..	17,609	52,001	204,913	..	6,357	3 12 10
91	36,363	2,828	16,655	3,250	8,730	67,826	..	228	4 8 7
92	53,400	31,181	378,162	36,754	31,263	530,760	..	48,960	4 5 10
93	441,993	34,423	601,877	23,438	70,266	1,174,997	..	4,638	3 14 3
94	36,005	24,121	51,932	51,317	32,399	195,774	..	9,566	3 19 8
95	389,538	12,179	286,000	50,385	163,176	901,278	..	83,170	4 7 8
	78,078,045	8,804,757	72,623,826	16,307,759	12743136	188,557,523	285,777	....	....
	COMPANIES.								
96	25,020	..	39,964	9,135	6,556	80,675	..	....	....
97	32,449	10,345	20,510	13,756	35,063	112,123	..	....	....
98	..	..	..	200	6,442	6,642	17,106	....	....
99	..	..	..	..	40	40	1,540	....	....
100	600	..	15,614	3,157	13,179	32,550	804	....	....
101	58,700	202	89,546	33,291	28,789	210,528	..	7,087	3 13 4
102	14,160	..	3,741,810	2,402,844	323,118	6,481,932	..	465,152	3 9 7
103	16,000	..	119,805	29,325	48,471	213,601	..	....	....
104	..	..	..	178	467	645	3,948	....	....
105	5,866	..	..	8,506	7,588	21,960	480	1,316	3 14 7
106	..	..	303	161	1,948	2,412	90	....	....
	152,795	10,547	4,027,552	2,500,553	471,661	7,163,108	23,968	....	....

* Net Liability exceeds the Life and Annuity Fund.

LIFE AND ANNUITY

TABLE (3), being a GRAND SUMMARY *of the* LIABILITIES *and*

UNITED KINGDOM, *Deposited with the Board*

ORDINARY LIFE

LIABILITIES.	£	£
To Paid-up Capital (including Sundry Shareholders' Balances)		11,343,334
,, Life and Annuity Funds		154,942,559
,, Fire Funds of Companies transacting Life Business	9,627,494	
,, Marine Funds of Companies transacting Life Business	588,169	
,, Reserve Funds	3,625,646	
,, Other Funds	628,854	
,, Profit and Loss Balances	2,603,110	
		17,073,273
,, Depreciation and Investment Balances	567,146	
,, "Globe" Annuitants (Liverpool and London)	1,102,800	
,, Outstanding Claims	3,277,869	
,, Outstanding Accounts	442,007	
,, Temporary Loans	81,750	
,, Sundries	12,562	
		5,484,134
Total		£188,843,300

INDUSTRIAL

LIABILITIES.	£	£
To Paid-up Capital (including Sundry Shareholders' Balances)		290,916
,, Life and Annuity Funds		6,878,519
,, Other Funds	6,574	
,, Outstanding Claims	9,860	
,, Outstanding Accounts	1,112	
,, Temporary Loans	95	
		17,641
Total		£7,187,076

ASSURANCE COMPANIES, 1889.

ASSETS *of 104* LIFE ASSURANCE *and* ANNUITY COMPANIES *of the of Trade during the Year ending 31st December, 1889.*

COMPANIES.

ASSETS.	£	£
By Mortgages		78,078,045
,, Loans on Policies		8,804,757
,, Loans on Rates and Rent Charges	21,701,631	
,, British Government Securities	5,526,669	
,, Indian and Colonial Government Securities	12,527,740	
,, Foreign Government Securities	3,588,248	
,, Debentures	16,809,493	
,, Shares and Stocks	12,470,045	
,, Companies' own Shares	461,133	
		73,084,959
,, Land and House Property and Ground Rents	11,830,769	
,, Life Interests and Reversions	3,268,031	
,, Loans on Personal Security	1,208,959	
		16,307,759
,, Agents' Balances and Outstanding Premiums	3,888,996	
,, Outstanding Interest	1,836,215	
,, Cash, Deposits, Stamps, &c.	6,479,706	
,, Customs Timber Measuring Balances, &c.	2,086	
,, Book Room Grant (Itinerant Methodists)	75,000	
,, Deficiencies, Preliminary Expenses, &c.	285,777	
		12,567,780
Total		£188,843,300

COMPANIES.

ASSETS.	£	£
By Mortgages		152,795
,, Loans on Policies		10,547
,, Loans on Rates and Rent Charges	1,917,159	
,, British Government Securities	699,868	
,, Indian and Colonial Government Securities	68,496	
,, Debentures	1,327,379	
,, Shares and Stocks	14,650	
		4,027,552
,, Land and House Property and Ground Rents	2,488,344	
,, Loans on Personal Security	12,209	
		2,500,553
,, Agents' Balances and Outstanding Preminms	330,501	
,, Outstanding Interest	68,321	
,, Cash, Deposits, Stamps, &c.	72,839	
,, Deficiencies, Preliminary Expenses, &c.	23,968	
		495,629
Total		£7,187,076

LIFE AND ANNUITY ASSURANCE COMPANIES, 1889.

TABLE (4), being a SUMMARY *of the* TOTAL INCOME *and the* TOTAL OUTGO *of 104* COMPANIES, *for the Year ending December 31st, 1889.*

INCOME.	ORDINARY COMPANIES.		INDUSTRIAL COMPANIES.	
	£	£	£	£
To Balance at the beginning of the Year		155,208,202		6,202,470
Adjustments: for two Ordinary (£54,342 and £500) and two Industrial (deficiencies of £240 and £3,514) Returns discontinued, and for a Balance (£10,204) transferred from the Industrial to the Ordinary Branch		—44,638		—6,450
		155,163,564		6,196,020
Premiums		13,928,001		4,360,438
Consideration for Annuities		1,107,787		175
Interest and Dividends (less Tax)		6,325,678		219,419
Increase in Value of Investments		239,580		
Fines, Fees, &c.	8,100		297	
Capital paid up	9,782		3,532	
Customs Timber Measuring, &c.	2,548			
Donations (Itinerant Methodists)	3,135			
Transfers from other Accounts	18,979			
Miscellaneous	1,229			
		43,773		3,829
Total Income	£	176,808,383	£	10,779,881

OUTGO.	ORDINARY COMPANIES.		INDUSTRIAL COMPANIES.	
	£	£	£	£
By Claims		11,001,581		1,663,661
Cash Bonuses and Reduction of Premiums		1,063,444		46
Annuities		743,326		56
Surrenders		888,728		9,495
Commission		709,247		1,179,055
Expenses of Management		1,424,505		704,241
Bad Debts	1,315		576	
Decrease in Value of Investments	68,252		191	
Interest on Capital and Dividends, and Bonuses to Shareholders	601,815		54,448	
Transfers to other Accounts	40,897		243	
Capital Repaid (Argus)	84,000			
Miscellaneous (including Defalcations, £3,350)	8,668			
		804,947		55,458
*Balance at the end of the Year		160,172,605		7,167,869
Total Outgo	£	176,808,383	£	10,779,881

* This balance includes the whole of the life and annuity funds (£161,821,078), and, in addition, the capital of companies whose business is limited to life assurance only.

DEALINGS WITH LAND.

Scale of Law Costs on the Sale, Purchase, or Mortgage of Real Property, Houses, or Land.

	For the 1st £1,000.	For the 2nd and 3rd £1,000.	For the 4th and each subsequent £1,000 up to £10,000.	For each subseq'ent £1,000 up to £100,000.*
	Per £100. £ s. d.	Per £100. £ s. d.	Per £100. £ s. d.	Per £100. £ s. d.
Vendor's solicitor for negotiating a sale of property by private contract	1 0 0	1 0 0	0 10 0	0 5 0
Do., do., for conducting a sale of property by public auction, including the conditions of sale—				
When the property is sold	1 0 0	0 10 0	0 5 0	0 2 6
When the property is not sold, then on the reserved price †	0 10 0	0 5 0	0 2 6	0 1 3
Do., do., for deducing title to freehold, copyhold, or leasehold property, and perusing, and completing conveyance (including preparation of contract, or conditions of sale, if any)	1 10 0	1 0 0	0 10 0	0 5 0
Purchaser's solicitor for negotiating a purchase of property by private contract ..	1 0 0	1 0 0	0 10 0	0 5 0
Do., do., for investigating title to freehold, copyhold, or leasehold property, and preparing and completing conveyance (including perusal and completion of contract, if any)	1 10 0	1 0 0	0 10 0	0 5 0
Mortgagor's solicitor for deducing title to freehold, copyhold, or leasehold property, perusing mortgage, and completing	1 10 0	1 0 0	0 10 0	0 5 0
Mortgagee's solicitor for negotiating loan..	1 0 0	1 0 0	0 5 0	0 2 6
Do., do., for investigating title to freehold, copyhold, or leasehold property; and preparing and completing mortgage....	1 10 0	1 0 0	0 10 0	0 5 0

Vendor's or mortgagor's solicitor for procuring execution and acknowledgment of deed by a married woman, £2. 10s. extra.

Where the prescribed remuneration would amount to less than £5 the prescribed remuneration is £5, except on transactions under £100, in which case the remuneration of the solicitor for the vendor, purchaser, mortgager, or mortgagee, is £3.

* Every transaction exceeding £100,000 to be charged for as if it were for £100,000.
† A minimum charge of £5 to be made whether a sale is effected or not.

Scale of Law Costs as to Leases, or Agreements for Leases, at Rack Rent (other than a Mining Lease, or a Lease for Building Purposes, or Agreement for the same).

LESSOR'S SOLICITOR FOR PREPARING, SETTLING, AND COMPLETING LEASE AND COUNTERPART.

Where the rent does not exceed £100, £7. 10s. per cent on the rental, but not less in any case than £5.

Where the rent exceeds £100, and does not exceed £500, £7. 10s. in respect of the first £100 of rent, and £2. 10s. in respect of each subsequent £100 of rent.

Where the rent exceeds £500, £7. 10s. in respect of the first £100 of rent, £2. 10s. in respect of each £100 of rent up to £500, and £1 in respect of every subsequent £100.

Lessee's solicitor for perusing draft and completing—one-half of the amount payable to the lessor's solicitor.

Scale of Law Costs as to Conveyances in Fee, or for any other Freehold Estate reserving rent, or Building Leases reserving rent, or other Long Leases not at Rack Rent (except Mining Leases), or Agreements for the same respectively.

VENDOR'S OR LESSOR'S SOLICITOR FOR PREPARING, SETTLING, AND COMPLETING CONVEYANCE AND DUPLICATE, OR LEASE AND COUNTERPART.

Amount of Annual Rent.	Amount of Remuneration.
Where it does not exceed £5..	£5.
Where it exceeds £5, and does not exceed £50	The same payment as on a rent of £5, and also 20 per cent on the excess beyond £5.
Where it exceeds £50, but does not exceed £150.....	The same payment as on a rent of £50, and 10 per cent on the excess beyond £50.
Where it exceeds £150.....	The same payment as on a rent of £150, and 5 per cent on the excess beyond £150.

Where a varying rent is payable the amount of annual rent is to mean the largest amount of annual rent.

Purchaser's or lessee's solicitor for perusing draft and completing—one-half of the amount payable to the vendor's or lessor's solicitor.

THE DEATH DUTIES.

PROBATE AND ACCOUNT DUTY.

This duty is now regulated by 44 Vict., cap. 12 (1881), and 52 Vict., cap. 7, and is payable on personal estate on the Affidavits for Probate and Letters of Administration; and also on the accounts which have to be rendered in special cases of benefits accruing to anyone by reason of the death of another person.

The rates of duty are as follow:—

Under £100 no duty.

Where value exceeds £100 and not £500, £1 for each £50, or fraction of £50.

„ „ £500 „ £1,000, £1. 5s. „ „ „

„ „ £1,000, £3 for each £100, or fraction of £100.

Where the gross value of an estate does not exceed £300, a fixed duty of 30s. only is payable to cover all duties.

In the case of persons dying domiciled in the United Kingdom, debts and funeral expenses are deducted before calculating the duty except where the value of the whole personal estate does not exceed £300.

ESTATE DUTY.

This duty was created and is regulated by 52 Vict., cap. 7, and is payable in respect of personal and real estate.

With regard to personal estate, the duty is payable where on application for probate or administration granted on or after 1st June, 1889, the value of the estate and effects in respect whereof probate duty is charged exceeds £10,000, or where the value of personal or movable property included in an account delivered on or after 1st June, 1889, exceeds £10,000.

With regard to real estate, the duty is payable where the value of any succession upon the death of any person dying on or after 1st June, 1889, exceeds £10,000, and where the value of any succession to real property under the will or intestacy of any person so dying does not exceed £10,000, but such value together with the value of any other benefit taken by the successor under such will or intestacy exceeds £10,000.

The rate of duty payable is £1 for each £100 or fraction of £100 of value of the estate and effects, or of the personal or movable property, or of the succession, as the case may be.

THE DEATH DUTIES.

LEGACY DUTY.

This duty is regulated by 55 Geo. iii., cap. 184, and 51 Vict., cap. 8, and is payable in respect of personal estate.

The rates of duty are as follows:—

Description of Legatee.	If payable out of Real Estate, and the deceased died before 1st July, 1888, or out of Personal Estate whenever deceased died.	If payable out of Real Estate, and the deceased died on or after 1st July, 1888.
Children of the deceased and their descendants, or the father or mother or any lineal ancestor of the deceased, or the husbands or wives of any such persons	£1 per cent.	£1. 10s. per cent.
Brothers and sisters of the deceased and their descendants, or the husbands or wives of any such persons	£3 ,,	£4. 10s. ,,
Brothers and sisters of the father or mother of the deceased and their descendants, or the husbands or wives of any such persons	£5 ,,	£6. 10s. ,,
Brothers and sisters of a grandfather or grandmother of the deceased and their descendants, or the husbands or wives of any such persons	£6 ,,	£7. 10s. ,,
Any person in any other degree of collateral consanguinity, or strangers in blood to the deceased	£10 ,,	£11. 10s. ,,

SUCCESSION DUTY.

This duty is regulated by 16 and 17 Vict., cap. 51, and 51 Vict., cap. 8, and is payable in respect of real estate, including leaseholds. The rates of duty are as follow:—

Description of Successor.	Where the deceased died before the 1st July, 1888.	Where the deceased died on or after the 1st July, 1888.
Lineal issue or lineal ancestor of the predecessor, or the husband or wife of any such person	£1 per cent.	£1. 10s. per cent.
Brothers and sisters of the predecessor and their descendants, or the husbands or wives of any such persons	£3 ,,	£4. 10s. ,,
Brothers and sisters of the father or mother of the predecessor and their descendants, or the husbands or wives of any such persons	£5 ,,	£6. 10s. ,,
Brothers and sisters of a grandfather or grandmother of the predecessor and their descendants, or the husbands or wives of any such persons	£6 ,,	£7. 10s. ,,
Persons of more remote consanguinity, or strangers in blood	£10 ,,	£11. 10s. ,,

The husband or wife of deceased is exempt from legacy or succession duty.

Legacy duty is payable on the capital value.

Succession duty is paid on the value of any annuity equal to the net income of the property, which annuity would continue during the life of the successor.

Where the whole personal estate does not exceed £300 no legacy duty is payable.

All pecuniary legacies, residues, or share of residue, although not of the amount of £20, are subject to duty.

In case of persons dying leaving issue, the probate duty covers all legacy duty which would formerly have been paid by such issue.

Where the principal value of the whole succession does not exceed £100, or when the value of the individual succession is less than £20, no succession duty is payable.

Persons domiciled in the United Kingdom pay legacy duty on all movable property wherever situate.

Persons domiciled abroad are altogether exempt from legacy duty on movable property.

By the Customs and Inland Revenue Act, 1885 (48 and 49 Vict., c. 51), a yearly duty of 5 per cent is to be levied upon the net annual value, income or profits, of the real and personal property of any body, corporate or incorporate. But there are a number of exemptions, the most important of which are:—Property belonging to the counties and certain other public bodies, charities, friendly societies, savings banks, and trading concerns.

¶ THE INTESTATES' ESTATES ACT, 1890,

PROVIDES that when a man dies after the first of September, 1890, leaving a widow but no issue, if the net value of his real and personal estate does not exceed £500 all shall belong to the widow. If the estate exceeds £500 the widow is to have a charge on it for that amount, with interest at 4 per cent until payment. The Act also declares that any provision which a widow may obtain under the present Act is to be in addition to that which she would have obtained if the Act had not passed. This Act does not apply to Scotland.

RULES BY WHICH THE PERSONAL ESTATES OF PERSONS DYING INTESTATE ARE DISTRIBUTED.

If the Intestate die leaving	*His representatives take in the proportion following :—*
Wife and child, or children	One-third to wife, rest to child or children; and if children are dead, then to the representatives (that is, their lineal descendants), except such child or children, not heirs-at-law, who had estate by settlement of intestate, or were advanced by him in his lifetime, equal to other shares.
¶ Wife only, no issue	See previous page.
Wife, no near relations	Half to wife, rest to next-of-kin in equal degree to intestate, or their legal representatives.
No wife or child	All to next-of-kin and their legal representatives
No wife, but child, children, or representatives of them, whether such child or children by one or more wives	All to him, her, or them.
Children by two wives	Equally to all.
If no child, children, or representatives of them	All to next-of-kin in equal degree to intestate.
Child, and grandchild by deceased child	Half to child, half to grandchild, who takes by representation.
Husband	Whole to him.
Father, and brother or sister	Whole to father.
Mother, and brother or sister	Whole to them equally.
Wife, mother, brothers, sisters, and nieces (daughters of deceased brother or sister)	Half to wife, residue to mother, brothers, sisters, and nieces.
Wife, and father	Half to wife, and half to father.
Wife, mother, nephews, and nieces	Half to wife, one-fourth to mother, and other fourth to nephews and nieces.
Wife, brothers or sisters, and mother	Half to wife, half to brothers or sisters, and mother
Mother, but no wife, child, father, brother, sister, nephew, or niece	The whole to mother.
Wife, and mother	Half to wife, half to mother.
Brother or sister of whole blood, and brother or sister of half blood	Equally to both.
Posthumous brother or sister, and mother	Equally to both.
Posthumous brother or sister, and brother or sister born in lifetime of father	Equally to both.
Father's father, and mother's mother	Equally to both.
Uncle or aunt's children, and brother's or sister's grandchildren	Equally to all.
Grandmother, uncle, or aunt	All to grandmother.
Two aunts, nephew, and niece	Equally to all.
Uncle, and deceased uncle's child	All to uncle.
Uncle by mother's side, and deceased uncle or aunt's child	All to uncle.
Nephew by brother, and nephew by half-sister	Equally *per capita*.*
Nephew by deceased brother, and nephews and nieces by deceased sister	Each in equal shares *per capita*, and not *per stirpes*.
Brother and grandfather	Whole to brother.
Brother's grandson, and brother or sister's daughter	All to brother or sister's daughter.
Brother and two aunts	All to brother.
Brother, and wife	Half to brother, half to wife.
Wife, mother, and children of a deceased brother (or sister)	Half to wife, a fourth to mother, and a fourth *per stirpes* to deceased brother's or sister's children.
Wife, brother, or sister, and children of a deceased brother or sister	Half to wife, one-fourth to brother or sister, one-fourth to deceased brother's or sister's children *per stirpes*.
Brother or sister, and children of a deceased brother or sister	Half to brother or sister, half to children of deceased brother or sister *per stirpes*.
Grandfather, no nearer relation	All to grandfather.

* That is, taking individually, and not by representation. Thus, if A die, leaving three brothers or sisters, they each take an equal part of his effects in his or her own right. But if either of them die, leaving children, his children would take his share *per stirpes*, that is *through him*, and not in their own rights.

By the Act 19 & 20 Vict. **cap. 94**, all special *local* customs relating to the estates of intestates are abolished.

EXPECTATION OF LIFE.

EXPECTATION OF LIFE TABLES were constructed by the late Dr. Farr, of the General Register Office, and were calculated on the death-rates of 1838–54; but since that time very important changes have occurred in the death-rates at different ages; and consequently new tables have been constructed by Dr. W. Ogle, who succeeded Dr. Farr, on the basis of the death-rates of 1871–80. The following table gives the results both of the older and the later calculations; the first two columns in the male and female parts, respectively, giving the survivors at each year of life out of a million born of the corresponding sex, by the older and the newer calculation; and the two other columns giving similarly the expectation of life at each year.

AGE.	MALES.				FEMALES.				AGE.
	Of 1,000,000 Born, the Number Surviving at the end of each Year of Life.		Mean After-lifetime (Expectation of Life).		Of 1,000,000 Born, the Number Surviving at the end of each Year of Life.		Mean After-lifetime (Expectation of Life).		
	1838–54.	1871–80.	1838–54.	1871–80.	1838–54.	1871–80.	1838–54.	1871–80.	
Col'mn	1	2	3	4	5	6	7	8	Col'mn
0	1,000,000	1,000,000	39·91	41·35	1,000,000	1,000,000	41·85	44·62	0
1	836,405	841,417	46·65	48·05	865,288	871,266	47·31	50·14	1
2	782,626	790,201	48·83	50·14	811,711	820,480	49·40	52·22	2
3	754,849	763,737	49·61	50·86	782,990	793,359	50·20	52·99	3
4	736,845	746,587	49·81	51·01	764,060	775,427	50·43	53·20	4
5	723,716	734,068	49·71	50·87	750,550	762,622	50·33	53·08	5
6	713,881	726,815	49·39	50·38	740,584	755,713	50·00	52·56	6
7	706,156	721,103	48·92	49·77	732,771	750,276	49·53	51·94	7
8	699,688	716,309	48·37	49·10	726,116	745,631	48·98	51·26	8
9	694,346	712,937	47·74	48·37	720,537	741,727	48·35	50·53	9
10	689,857	708,990	47·05	47·60	715,769	738,382	47·67	49·76	10
11	685,982	706,146	46·31	46·79	711,581	735,405	46·95	48·96	11
12	682,512	703,595	45·54	45·96	707,770	732,697	46·20	48·13	12
13	679,256	701,200	44·76	45·11	704,155	730,122	45·44	47·30	13
14	676,057	698,840	43·97	44·26	700,581	727,571	44·66	46·47	14
15	672,776	696,419	43·18	43·41	696,917	724,956	43·90	45 63	15
16	669,296	693,695	42·40	42·58	693,050	722,084	43·14	44·81	16
17	665,529	690,746	41·64	41·76	688,894	718,993	42·40	44·00	17
18	661,402	687,507	40·90	40·96	684,378	715,622	41·67	43·21	18
19	656,868	683,941	40·17	40·17	679,463	711,946	40·97	42·43	19
20	651,903	680,033	39·48	39·40	674,119	707,949	40·29	41·66	20
21	646,502	675,769	38·80	38·64	668,345	703,616	39·63	40·92	21
22	641 028	671,344	38·13	37·89	662,474	699,141	38 98	40·18	22
23	635,486	666,754	37·46	37·15	656,509	694,521	38·33	39·44	23
24	629,882	661,997	36·79	36·41	650,463	689,759	37·68	38·71	24
25	624,221	657,077	36·12	35·68	644,342	684,858	37·04	37 98	25
26	618,503	651,998	35·44	34·96	638,148	679,822	36·39	37·26	26
27	612,731	646,757	34·77	34·24	631,891	674,661	35·75	36·54	27
28	606,906	641,353	34·10	33·52	625,575	669,372	35·10	35·83	28
29	601,026	635,778	33·43	32·81	619,201	663,959	34·46	35·11	29
30	595,089	630,033	32·76	32·10	612,774	658,418	33·81	34·41	30
31	589,094	624,124	32·09	31·40	606,296	652,747	33·17	33·70	31
32	583,036	618,056	31·42	30·71	599,769	646,957	32·53	33·00	32
33	576,912	611,827	30·74	30·01	593,196	641,045	31·88	32·30	33
34	570,716	605,430	30·07	29·33	586,575	635,003	31·23	31·60	34
35	564,441	598,860	29·40	28·64	579,908	628,842	30·59	30·90	35
36	558,083	592,107	28·73	27·96	573,192	622,554	29·94	30·21	36
37	551,634	585,167	28·06	27·29	566,431	616,144	29·29	29·52	37
38	545,084	578,019	27·39	26·62	559,619	609,599	28·64	28·83	38
39	538,428	570,656	26·72	25·96	552,758	602,924	27·99	28·15	39
40	531,657	563,077	26·06	25·30	545,844	596,113	27·34	27·46	40
41	524,761	555,254	25·39	24·65	538,876	589,167	26·69	26·78	41
42	517,734	547,288	24·73	24·00	531,849	582,104	26·03	26·10	42
43	510,567	539,161	24·07	23·35	524,765	574,919	25·38	25·42	43
44	503,247	530,858	23·41	22·71	517,617	567,612	24·72	24·74	44

EXPECTATION OF LIFE.

AGE.	MALES.				FEMALES.				AGE.
	Of 1,000,000 Born, the Number Surviving at the end of each Year of Life.		Mean After-lifetime (Expectation of Life).		Of 1,000,000 Born, the Number Surviving at the end of each Year of Life.		Mean After-lifetime (Expectation of Life).		
	1838-54.	1871-80.	1838-54.	1871-80.	1838-54.	1871-80.	1838-54.	1871-80.	
Col'mn	1	2	3	4	5	6	7	8	Col'mn
45	495,770	522,874	22·76	22·07	510,408	560,174	24·06	24·06	45
46	488,126	513,702	22·11	21·44	503,122	552,602	23·40	23 38	46
47	480,308	504,836	21·46	20·80	495,768	544,892	22·74	22·71	47
48	472,306	495,761	20·82	20·18	488,339	537·043	22·08	22·03	48
49	464,114	486,479	20·17	19·55	480,833	529,048	21·42	21·36	49
50	455,727	476.980	19·54	18·93	473,245	520,901	20·75	20·68	50
51	447,139	467,254	18·90	18·31	465,572	512,607	20·09	20·01	51
52	438,099	457,022	18·28	17·71	457,814	504,188	19·42	19·34	52
53	428,801	446,510	17·67	17·12	449,966	495.645	18·75	18·66	53
54	419,256	435,729	17·06	16·53	442,027	486,973	18·08	17·98	54
55	409,460	424,677	16·45	15·95	433,331	477,440	17·43	17·33	55
56	399,408	413,351	15·86	15·37	424,239	467,443	16·79	16 69	56
57	389,088	401,740	15·26	14·80	414,761	456,992	16·17	16 06	57
58	378,481	389,827	14·68	14·24	404,895	446,079	15·55	15·45	58
59	367,570	377,591	14·10	13·68	394,636	434,695	14·94	14·84	59
60	356,330	365,011	13·53	13·14	383,974	422,835	14·34	14·24	60
61	344,744	352,071	12·96	12·60	372,895	410.477	13·75	13·65	61
62	332 789	338,820	12·41	12·07	361,387	397,644	13·17	13·08	62
63	320,451	325,256	11·87	11·56	349,436	384,319	12·60	12·51	63
64	307,720	311,368	11·34	11 05	337,031	370,495	12·05	11·96	64
65	294.588	297,156	10·82	10·55	324,165	356,165	11·51	11·42	65
66	281,064	282,638	10 32	10·07	310,833	341,326	10·98	10·90	66
67	267,160	267,829	9·83	9·60	297,048	325,988	10·47	10·39	67
68	252,901	252,763	9·36	9·14	282,819	310,170	9·97	9·89	68
69	238,328	237,487	8·90	8·70	268,177	293,899	9·48	9·41	69
70	223,490	222,056	8·45	8·27	253,161	277,225	9·02	8·95	70
71	208,453	206,539	8·03	7·85	237,822	260,207	8·57	8·50	71
72	193,297	190,971	7·62	7·45	222,230	242,934	8·13	8·07	72
73	178,114	175,449	7·22	7·07	206,464	225,497	7·71	7·65	73
74	163,003	160,074	6·85	6 70	190,620	208,003	7·31	7·25	74
75	148,076	144,960	6·49	6·34	174,800	190,566	6·93	6·87	75
76	133,453	130,227	6·15	6·00	159,126	173,316	6·56	6·51	76
77	119,251	115.986	5·82	5·68	143,722	156,392	6·21	6·16	77
78	105,592	102,359	5·51	5·37	128,711	139,927	5·88	5·82	78
79	92,587	89,449	5·21	5·07	114,229	124,065	5·56	5·50	79
80	80 343	77,354	4 93	4·79	100,394	108,935	5·26	5·20	80
81	68,946	66,153	4·66	4·51	87,323	94,662	4·98	4·90	81
82	58,471	55,842	4·41	4·26	75,119	81,805	4·71	4·63	82
83	48,970	46,489	4·17	4·01	63,862	68,966	4·45	4·37	83
84	40,471	38,132	3·95	3·58	53,615	57,723	4·21	4·12	84
85	32,979	30,785	3·73	3·56	44 419	47,631	3·98	3·88	85
86	26,476	24,436	3·53	3·36	36,284	38,710	3·76	3·66	86
87	20,926	19,054	3·34	3·17	29,202	30,958	3·56	3·46	87
88	16,268	14,576	3·16	2·99	23,135	24,338	3 36	3·26	88
89	12,428	10,926	3·00	2·82	18,027	18,788	3·18	3·08	89
90	9,321	8,015	2·84	2·66	13,802	14,225	3·01	2·90	90
91	6,859	5,748	2·69	2·51	10,376	10,553	2·85	2·74	91
92	4.946	4,025	2·55	2·37	7,650	7,658	2·70	2·58	92
93	3,492	2,749	2·41	2·24	5,526	5,429	2·55	2·44	93
94	2,411	1,828	2·29	2·12	3,908	3,756	2·42	2·30	94
95	1,628	1,183	2·17	2·01	2,704	2,533	2·29	2·17	95
96	1,071	742	2·06	1·90	1,827	1,661	2·17	2·11	96
97	688	452	1·95	1·81	1,204	1,057	2·06	2·03	97
98	430	266	1·85	1·72	774	653	1·96	1·83	98
99	262	151	1·76	1·65	483	389	1·86	1·73	99
100	154	82	1·68	1·61	295	225	1·76	1·62	100

PUBLIC ACTS OF PARLIAMENT PASSED DURING THE SESSION 1890.

**** *The figure before each Act denotes the Chapter.*

53 AND 54 VICTORIA.—SESSION 1890.

1. An Act to apply certain sums out of the Consolidated Fund to the service of the years ending on the 31st day of March, 1889, 1890, and 1891.

2. An Act to abolish the office of Secretary of Presentations and to provide for the performance of the duties attached to that office.

3. An Act to remove doubts as to the legality of certain payments by county councils.

4. An Act to provide during twelve months for the discipline and regulation of the Army.

5. An Act to consolidate certain of the enactments respecting lunatics.

6. An Act to empower the Secretary of State in Council of India to raise money in the United Kingdom for the purchase of the South Indian Railway, and for other purposes relating thereto.

7. An Act to amend the Commissioners for Oaths Act, 1889.

8. An Act to grant certain Duties of Customs and Inland Revenue, to repeal and alter other Duties, and to amend the laws relating to Customs and Inland Revenue.

9. An Act to amend the Merchant Shipping Acts relating to load line.

10. An Act to amend the Herring Fishery (Scotland) Act, 1889.

11. An Act to amend the law relating to municipal elections in certain burghs in Scotland.

12. An Act for providing money for defraying costs, charges, and expenses incurred and to be incurred by the Drainage Board for the River Suck Drainage District.

13. An Act to amend the Electric Lighting Acts, 1882 and 1888.

14. An Act for conferring further powers under the Contagious Diseases (Animals) Acts, 1878 to 1886, with respect to pleuro-pneumonia.

15. An Act to amend the Open Spaces Acts.

16. An Act to facilitate gifts of land for dwellings for the working classes in populous places.

17. An Act to amend the laws relating to the rating of orchards for sanitary purposes.

18. An Act to amend the law relating to the grant of superannuation allowances and gratuities to certain workmen in the manufacturing and store establishments of the War Department.

19. An Act to facilitate the appointment of new trustees of land held in trust for religious or educational purposes, and to make provision for vesting the land in the trustees for the time being.

20. An Act to amend the Public Health (Scotland) Act, 1867, in relation to hospitals for burghs.

21. An Act to consolidate certain enactments relating to the regulation of the Inland Revenue.

22. An Act for the purpose of making operative certain articles in the Education Code, 1890.

23. An Act to further improve the administration of justice in the Court of Chancery of the County Palatine of Lancaster.

24. An Act to amend the law relating to deeds of arrangement.

25. An Act to make provision for building and enlarging barracks and camps in the United Kingdom and in certain colonies, and to amend the law relating to the acquisition of land for military purposes.

26. An Act to enable Her Majesty to assent to a Bill for conferring a Constitution on Western Australia.

27. An Act to amend the law respecting the exercise of Admiralty jurisdiction in Her Majesty's dominions and elsewhere out of the United Kingdom.

28. An Act to apply the sum of £11,850,436 out of the Consolidated Fund to the service of the year ending on the 31st March, 1891.

29. An Act to amend the law by making better provision for the widows of certain intestates in the distribution of such intestates' property.

30. An Act to amend the Poor Laws of Ireland in relation to rating.

31. An Act to amend the law relating to the superannuation of officers and servants of pauper lunatic asylums in Ireland.

32. An Act to assent to certain provisions in an agreement between Her Majesty and the German Emperor.

33. An Act for further promoting the revision of the Statute Law by repealing enactments which are superfluous, or have ceased to be in force, or have become unnecessary.

34. An Act to prevent the spread of infectious disease.

35. An Act to amend the Boiler Explosions Act, 1882.

36. An Act to amend the Removal Terms (Scotland) Act, 1886.

37. An Act to consolidate the Foreign Jurisdiction Acts.

38. An Act for taking the Census of Scotland.

39. An Act to declare and amend the Law of Partnership.

40. An Act to extend the provisions of the Factors Act (1889) to Scotland.

41. An Act to further amend the Acts relating to the raising of money by the London County Council, and for other purposes.

42. An Act to remove certain doubts which have arisen under the Reserve Forces Act, 1882, and for other purposes connected therewith.

43. An Act to amend the law in regard to the education of blind and deaf mute children in Scotland.

44. An Act to amend the Supreme Court of Judicature Acts.

45. An Act to make provision respecting the pensions, allowances, and gratuities of police constables in England and Wales, and their widows and children, and to make other provisions respecting the police of England and Wales.

46. An Act for taking the Census of Ireland.

47. An Act to amend the law relating to marriage of British subjects outside the United Kingdom.

48. An Act to amend the Pharmacy Act (Ireland), 1875.

49. An Act to continue various expiring laws.

50. An Act to grant money for the purpose of certain local loans, and for other purposes relating to local loans.

51. An Act for further promoting the revision of the Statute Law by repealing enactments which have ceased to be in force or have become unnecessary.

52. An Act to provide further facilities for the construction of certain railways in Ireland.

53. An Act to exempt certain letters of hypothecation from the operation of the Bills of Sales Act, 1882.

54. An Act to amend the 78th section of the Metropolis Management Amendment Act, 1862.

55. An Act for the better prevention of corrupt and illegal practices at elections in Scotland other than Parliamentary elections.

56. An Act to further amend the Customs Consolidation Act, 1876.

57. An Act to amend the law with respect to compensation due to tenants on land under mortgage.

58. An Act to make better provision for the payment of clerks of unions and collectors of poor rates for services in carrying into effect the Acts relating to the registration of Parliamentary voters in Ireland.

59. An Act to amend the Public Health Acts.

60. An Act for the distribution and application of certain Duties of Customs and Excise, and for other purposes connected therewith.

61. An Act for taking the Census of England and Wales.

62. An Act to give further powers to companies with respect to certain instruments under which they may be constituted or regulated.

63. An Act to amend the law relating to the winding up of companies in England and Wales.

64. An Act to amend the law relating to the liability of directors and others for statements in prospectuses and other documents soliciting applications for shares or debentures.

65. An Act to provide for an appeal from a sanitary authority failing to carry into effect the Allotments Act, 1887.

66. An Act to amend the Metropolis Management Acts.

67. An Act to make provision respecting the pensions, allowances, and gratuities of police constables in Scotland, and their widows and children, and to make other provisions respecting the police of Scotland.

68. An Act to amend the Public Libraries (England) Acts.

69. An Act to amend the Settled Land Acts, 1882 to 1889.

70. An Act to consolidate and amend the Acts relating to artisans and labourers' dwellings and the housing of the working classes.

71. An Act to amend the Law of Bankruptcy.

72. An Act to apply a sum out of the Consolidated Fund to the service of the year ending March 31st, 1891, and to appropriate the supplies granted in this session of Parliament.

THE QUEEN AND ROYAL FAMILY.

THE QUEEN.—VICTORIA, of the United Kingdom of Great Britain and Ireland, &c., Queen, Defender of the Faith. Her Majesty was born at Kensington Palace, May 24, 1819; succeeded to the throne, June 20, 1837, on the death of her uncle King William IV.; was crowned June 28, 1838; and married, February 10, 1840, to his Royal Highness Prince Albert. Her Majesty is the only child of his late Royal Highness Edward, Duke of Kent, son of King George III. The children of her Majesty are:—

1. Her Royal Highness Victoria Adelaide Mary Louisa, PRINCESS ROYAL OF ENGLAND AND PRUSSIA, born November 21, 1840, and married to his Royal Highness Frederick Wilhelm, the Crown Prince of Germany, January 25, 1858, afterwards the Emperor of Germany, and has issue, living, three sons and four daughters.

2. His Royal Highness Albert Edward, PRINCE OF WALES, born November 9, 1841, married, March 10, 1863, Alexandra of Denmark (Princess of Wales), born December 1, 1844, and has issue, Prince Albert Victor, born January 8, 1864; George Frederick Ernest Albert, born June 3, 1865; Louisa Victoria Alexandra Dagmar, born February 20, 1867; Victoria Alexandra Olga Mary, born July 6, 1868; and Maud Charlotte Mary Victoria, born November 26, 1869; Alexander John Charles Albert, born April 6, 1871, died April 7, 1871.

3. Her Royal Highness Alice Maud Mary, born April 25, 1843; died December 14, 1878; married his Royal Highness Prince Frederick Louis of Hesse, July 1, 1862; had issue five daughters and two sons; the second son died by an accident, May, 1873; the youngest daughter died November 15, 1878.

4. His Royal Highness Alfred Ernest Albert, Duke of Edinburgh, born August 6, 1844; married the Grand Duchess Marie of Russia, January 23, 1874; and has had issue a son, born October 15, 1874, and four daughters, born October 29, 1875, November 25, 1876, September 1, 1878, and March, 1884.

5. Her Royal Highness Helena Augusta Victoria, born May 25, 1846; married to his Royal Highness Prince Frederick Christian Charles Augustus of Schleswig-Holstein Sonderburg-Augustenburg, July 5, 1866; and has issue living two sons and two daughters.

6. Her Royal Highness Louise Caroline Alberta, born March 18, 1848; married to the Marquis of Lorne, eldest son of the Duke of Argyll, March 21, 1871.

7. His Royal Highness Arthur William Patrick Albert, Duke of Connaught, born May 1, 1850; married Princess Louise Margaret of Prussia, March 13, 1879; issue, a daughter, born January 15, 1882; a son, born January 13, 1883; and a daughter, born March 17, 1886.

8. His Royal Highness Leopold George Duncan Albert, Duke of Albany, born April 7, 1853; married, April 27, 1882, Princess Helen of Waldeck; died March 28, 1884; issue, a daughter, born February 26, 1883, and a son, born July 19, 1884.

9. Her Royal Highness Beatrice Mary Victoria Feodora, born April 14, 1857; married, July 23, 1885, to Prince Henry of Battenberg; issue, a son, born November 23, 1886, a daughter, born October 24, 1887, and a son, born May 21, 1889.

PARLIAMENTS OF THE UNITED KINGDOM.

	Assembled.	Dissolved.	Duration.		Assembled.	Dissolved.	Duration.
	GEORGE III.		Yrs. m. d.		WILLIAM IV.		Yrs. m. d.
1	Sept. 27, 1796*	June 29, 1802	5 9 2	11	Jan. 29, 1833	Dec. 30, 1834	1 11 1
2	Oct. 29, 1802	Oct. 25, 1806	3 11 27	12	Feb. 19, 1835	July 17, 1837	2 4 28
3	Dec. 15, 1806	April 29, 1807	0 4 14		VICTORIA.		
4	June 22, 1807	Sept. 29, 1812	5 3 7	13	Nov. 15, 1837	June 23, 1841	3 7 8
5	Nov. 24, 1812	June 10, 1818	5 6 16	14	Aug. 19, 1841	July 23. 1847	5 11 4
6	Jan. 14, 1819	Feb. 29, 1820	1 1 15	15	Nov. 18, 1847	July 1, 1852	4 7 13
				16	Nov. 4, 1852	Mar. 21, 1857	4 4 17
	GEORGE IV.			17	April 30, 1857	April 23, 1859	1 11 23
7	April 23, 1820	June 2, 1826	6 1 9	18	May 31, 1859	July 6, 1865	6 1 6
8	Nov. 14, 1826	July 24, 1830	3 8 10	19	Feb. 1, 1866	Nov. 11, 1868	2 9 10
				20	Dec. 10, 1868	Jan. 26, 1874	5 1 16
	WILLIAM IV.			21	Mar. 5, 1874	Mar. 25, 1880	6 0 20
9	Oct. 26, 1830	April 22, 1831	0 5 27	22	April 29, 1880	Nov. 18, 1885	5 6 20
10	June 14, 1831	Dec. 3, 1832	1 5 9	23	Jan. 12, 1886	June 25, 1886	0 5 5
				24	Aug. 5, 1886		

*Parliament first met after the Union with Ireland, Jan. 22, 1801.

LIST OF ADMINISTRATIONS IN THE PRESENT CENTURY.

Date.	Prime Minister.	Duration.	Chancellor.	Exchequer.	Home Secretary.	Foreign Sec.
		Yrs. Days.				
Dec. 23, 1783	William Pitt	17 84	{Thurlow.... {Loughboro'.	William Pitt .	Portland	Grenville.
Mar. 17, 1801	Hy. Addington ..	3 59	Eldon.....	H. Addington.	Portland, Pelham, C. Yorke.	Hawkesbury.
May 15, 1804	William Pitt	1 272	Eldon.....	William Pitt .	Hawkesbury....	{Harrowby. {Mulgrave.
Feb. 11, 1806	Lord Grenville ..	1 48	Erskine....	Lord H. Petty	Spencer.....	{Charles J. Fox. {Visct. Howick.
Mar. 31, 1807	Duke of Portland	2 246	Eldon.....	S. Perceval ..	Hawkesbury....	G. Canning.
Dec. 2, 1809	Spencer Perceval	2 190	Eldon.....	S. Perceval ..	R. Ryder	{Bathurst. {Wellesley.
June 9, 1812	Earl of Liverpool	14 319	Eldon.....	{N. Vansittart. {F. J. Robinson	Sidmouth ..... Robert Peel	Castlereagh. G. Canning.
Apr. 24, 1827	George Canning.	0 134	Lyndhurst .	G. Canning ..	{Sturges Bourne.. {Lansdowne.....	Dudley.
Sept. 5, 1827	Visct. Goderich..	0 142	Lyndhurst .	J. C. Herries .	Lansdowne	Dudley.
Jan. 25, 1828	D. of Wellington.	2 301	Lyndhurst .	H. Goulburn .	Robert Peel	{Dudley. {Aberdeen.
Nov. 22, 1830	Earl Grey	3 238	Brougham .	Althorp.....	Melbourne	Palmerston.
July 18, 1834	Visct. Melbourne	0 161	Brougham .	Althorp.....	Duncannon	Palmerston.
Dec. 26, 1834	Sir Robert Peel..	0 113	Lyndhurst .	Sir R. Peel ..	H. Goulburn ..	Wellington.
Apr. 18, 1835	Visct. Melbourne	6 141	{In Comm. .. {Cottenham .	T. S. Rice ..... F. T. Barring. ..	Lord J. Russell.. Normanby	Palmerston.
Sept. 6, 1841	Sir Robert Peel..	4 303	Lyndhurst .	H. Goulburn .	Sir J. Graham..	Aberdeen.
July 6, 1846	Ld. John Russell	5 236	{Cottenham . {Truro	Sir C. Wood..	Sir George Grey	{Palmerston. {Granville.
Feb. 27, 1852	Earl of Derby ..	0 305	St.Leonards	B. Disraeli ..	S. H. Walpole ..	Malmesbury.
Dec. 28, 1852	Earl of Aberdeen	2 44	Cranworth .	W. Gladstone.	Palmerston	{Lord J. Russell {Clarendon.
Feb. 10, 1855	Lord Palmerston	3 15	Cranworth .	{W. Gladstone.. {Sir G. C. Lewis	Sir George Grey	Clarendon.
Feb. 25, 1858	Earl of Derby ..	1 113	Chelmsford.	B. Disraeli ..	S. H. Walpole ..	Malmesbury.
June18, 1859	Lord Palmerston	6 141	{Campbell .. {Westbury ..	W. Gladstone.	{Sir G. C. Lewis.. {Sir George Grey.	Russell.
Nov. 6, 1865	Earl Russell	0 242	Cranworth .	W. Gladstone.	Sir George Grey	Clarendon.
July 6, 1866	Earl of Derby ..	1 236	Chelmsford.	B. Disraeli ..	{S. H. Walpole .. {Gathorne Hardy.	Stanley.
Feb. 27, 1868	Benjmn. Disraeli	0 285	Cairns	G. W. Hunt ..	G. Hardy	Stanley.
Dec. 9, 1868	W. E. Gladstone.	5 74	{Hatherley.. {Selborne ..	{Robert Lowe.. {W. Gladstone .	{H. A. Bruce .... {Robert Lowe	{Clarendon. {Granville.
Feb. 21, 1874	{Benjamin Disraeli {Earl Beaconsfield. }	6 67	Cairns	S. Northcote .	R. A. Cross	{Derby. {Salisbury.
Apr. 28, 1880	W. E. Gladstone.	5 57	Selborne ..	{W. Gladstone.. {H.C.E.Childers	Sir W. Harcourt	Granville.
June 24, 1885	Mrq. of Salisbury	0 227	Halsbury ..	Hicks-Beach..	R. A. Cross	Salisbury.
Feb. 7, 1886	W. E. Gladstone.	0 139	Herschel ..	W. Harcourt..	H. C. E. Childers	Roscbery.
July 24, 1886	Mrq. of Salisbury		Halsbury ..	{Lrd. Churchill. {G. J. Goschen.	H. Matthews ..	{Iddesleigh. {Salisbury.

PRIME MINISTERS FOR FIFTY-FIVE YEARS.

Sir Robert Peel ....December 15, 1834
Viscount Melbourne.....April 18, 1835
Sir Robert Peel .....August 31, 1841
Lord John Russell .....July 6, 1846
Earl of Derby .....February 27, 1852
Earl of Aberdeen....December 28, 1852
Viscount Palmerston..February 26, 1855
Earl of Derby .....February 26, 1858
Viscount Palmerston ....June 18, 1859
Earl Russell.....October 28, 1865
Earl of Derby .....July 8, 1866
Mr. Disraeli..March to December, 1868
Mr. Gladstone .....December 9, 1868
Earl Beaconsfield....February 21, 1874
Mr. Gladstone .....April 29, 1880
and Ch. of Ex. to April, 1883.
Marquis of Salisbury ....June 24, 1885
Mr. Gladstone.....February 2, 1886
Marquis of Salisbury....August 3, 1886

Nineteen changes of Governments have taken place in the last fifty-five years, but in that time only nine men have been Premiers, and of these Mr. Gladstone and the Marquis of Salisbury are the sole survivors. Mr. Gladstone has been Premier longer than any other statesman since the Earl of Liverpool, who held office nearly fifteen years in succession.

In 1885 the number of members of the Lower House was finally fixed at 670, as against 658 in previous years; England returning 465, Wales 30, Scotland 72, and Ireland 103 members. The previous distribution had been—England 469, Wales 30, Scotland 60, and Ireland 103 seats. There are now 377 county members, as against 283; 284 borough members, as against 360; and 9 University members, as against 9.

THE CABINET.

Office.	Minister.
Premier and Secretary of State for Foreign Affairs	Right Hon. Lord Salisbury.
First Lord of the Treasury	Right Hon. W. H. Smith.
Lord Chancellor	Right Hon. Lord Halsbury.
President of the Council	Right Hon. Lord Cranbrook.
Lord Privy Seal	Right Hon. Earl Cadogan.
Chancellor of the Exchequer	Right Hon. G. J. Goschen.
Secretaries of State. Home	Right Hon. H. Matthews.
Secretaries of State. Colonial	Right Hon. Lord Knutsford.
Secretaries of State. Indian	Right Hon. Lord Cross.
Secretaries of State. War	Right Hon. E. Stanhope.
First Lord of the Admiralty	Right Hon. Lord G. Hamilton.
Chief Secretary for Ireland	Right Hon. A. J. Balfour.
Lord Chancellor for Ireland	Right Hon. Lord Ashbourne.
President of the Board of Trade	Right Hon. Sir M. E. Hicks-Beach.
Chancellor of the Duchy	Right Hon. Duke of Rutland.
President of the Local Government Board	Right Hon. C. T. Ritchie.

THE SALISBURY MINISTRY.

Prime Minister—Marquis of Salisbury.

First Lord of the Treasury—Right Hon. W. H. Smith.

Lord High Chancellor—Lord Halsbury.

Lord Privy Seal—Earl Cadogan.

Lord President of the Council—Viscount Cranbrook.

Chancellor of the Exchequer—The Right Hon. G. J. Goschen.

The Secretaries of State.

Home—Right Hon. Henry Matthews, Q.C.

War—Right Hon. Edward Stanhope.

Foreign—Marquis of Salisbury.

India—Right Hon. Viscount Cross.

The Colonies—Right Hon. Lord Knutsford.

First Lord of the Admiralty—Right Hon. Lord George Hamilton.

Secretary—A. B. Forwood, Esq.

President of the Board of Trade—Right Hon. Sir M. E. Hicks-Beach.

President of the Local Government Board—Right Hon. Charles T. Ritchie.

Postmaster-General—Right Hon. Cecil Raikes.

Lord-Lieutenant of Ireland—Earl of Zetland.

Lord Chancellor of Ireland—Lord Ashbourne.

Lord Advocate of Scotland—Right Hon. J. Robertson.

Chief Secretary for Ireland—Right Hon. Arthur James Balfour.

Chancellor of the Duchy of Lancaster—Right Hon. Duke of Rutland.

Junior Lords of the Treasury—H. S. Herbert, Colonel Walrond, and Sir Herbert Maxwell.

Attorney-General for England—Sir R. Webster, Q.C.

Solicitor-General for England—Sir Edward Clarke, Q.C.

PRESIDENTS OF THE UNITED STATES OF AMERICA.

	YEAR.
Declaration of Independence	4th July, 1776
General Washington first President	1789 and 1793
John Adams	1797
Thomas Jefferson	1801 and 1805
James Madison	1809 and 1813
James Monroe	1817 and 1821
John Quincy Adams	1825
Gen. Andrew Jackson	1829 and 1833
Martin Van Buren	1837
Gen. William Henry Harrison (died 4th April)	1841
John Tyler (previously Vice-President)	1841
James Knox Polk	1845
General Zachary Taylor (died 9th July, 1850)	1849
Millard Fillmore (previously Vice-President)	1850
General Franklin Pierce	1853
James Buchanan	1857
Abraham Lincoln (assassinated 14th April, 1865)	1861 and 1865
Andrew Johnson (previously Vice-President)	1865
General Ulysses S. Grant	1869 and 1873
Rutherford Birchard Hayes, after long contest with Tilden	1877
General Garfield (shot July 2; died September 19)	1881
Chester A. Arthur, Vice-President, succeeded September 20	1881
Grover Cleveland	1885
General Benjamin Harrison	1889

The United States of America form a Federal Republic, consisting of 38 partially independent States, divisible as follows:—6 Eastern, or New England, 4 Middle, 10 Southern, 18 Western; and 1 Federal district, and 8 organised Territories, the centre of North America.

The area in English square miles is estimated at 5,034,459, or 1,942,053,760 acres, exclusive of the vast district of Alaska, comprising 369,529,600 acres. One-fourth only is civilised.

The estimated population of the whole of the Territories, including the States, is about 57,000,000. The increase in the ten years, 1870—1880, was 11,594,795.

FOREIGN MONEYS AND THEIR ENGLISH EQUIVALENTS.

COUNTRY.	GOLD COINS. Denomination.	Sterling Value.	SILVER COINS. Denomination.	60¾d., *i.e.* Gold to Silver as 15·5 is to 1.
		£ s. d.		s. d. (Intrinsic Value with Silver per Troy Ounce.)
*America	*See* United States			
*Austro-Hungary	Ducat	0 9 4	*Florin or gulden* of 100 kreutzer	1 11¼
	8-florin or gulden piece	0 15 10½	¼-florin	0 5¾
*Belgium	*See* France, and footnote			
Brazil	10 milreis	1 2 6½	1 milreis of 1,000 reis	2 0¾
Chili, Colombia, Uruguay	doubloon or 5-peso piece	0 18 9	1 peso of 100 centavos	3 11¼
China		....	Tael of 10mace or100conderin or1000csh	6 6¾
*Denmark	10-crown piece	0 11 0¼	1 *crown* of 100 öre	1 0¾
Egypt	100-piastre piece	1 0 5	1 piastre of 40 paras	0 2¼
Finland	10-markkaa piece	0 7 11¼	1 mark of 100 penni	0 9½
*France	10-franc piece	0 7 11¼	5-franc piece	3 11¼
			1 *franc* of 100 centimes	0 8¾
*German Empire	Crown of 10 reichsmarks	0 9 9½	1 *reichsmark* of 100 pfennige	0 10¼
*Great Britain	Sovereign of 20 shillings	1 0 0	Crown of 5 shillings	4 7¼
			Shilling of 12 pence	0 11
*Greece	*See* France, and footnote			
*Holland and Java	Ducat	0 9 4½	Rixdaler of 2½ florins	4 2
	10-florin piece	0 16 6¼	*Florin* of 100 cents	1 8
India	Mohur of 15 rupees	1 9 2½	Rupee of 16 annas, 64 pice, or 192 pies.	1 10½
*Italy	*See* France, and footnote			
Japan	10-yen piece	2 0 11¾	1 yen of 100 sen	4 8¼
Mexico	10-peso piece	2 0 5¼	1 peso of 100 centavos	4 8¾
*Netherlands	*See* Holland			
*Norway and Sweden	*See* Denmark, and footnote.			0 2
Ottoman Empire	Turkish pound of 100 piastres	0 18 0¾	1 piastre of 40 paras	0 10
Persia	Toman of 10 krans	0 9 5	Kran 20 shahis	
Peru and Venezuela	10-sol piece	1 19 7¾	Sol of 10 dineros or 100 cents	3 11¼
*Portugal	Crown of 10 milreis	2 4 4¾	*Teston* of 100 reis	0 4¾
*Prussia	*See* German Empire			
Roumania	*See* France, and footnote			
*Russia	3-rouble piece	0 9 10	Rouble of 100 kopecks	3 2
Servia and Bulgaria	*See* France, and footnote		*Tchetvertak or ¼ rouble*	0 9½
*Spain	Doubloon of 10 escudos	1 0 7½	Escudos (or ½ dollar) of 10 reals	2 0¾
	25-peseta piece	0 19 10	Peseta of 100 centimos	0 8¾
*Switzerland	*See* France, and footnote			
Tunis	10-piastre piece	0 4 9½	Piastre	0 5¾
Turkey	*See* Ottoman Empire	....	Trade dollar	4 8¼
*United States	Eagle of 10 dollars	2 1 1¼	*Dollar* of 100 cents	4 2¼
Uruguay	*See* Chili, and footnote		½ dollar of 50 cents	1 11¼
Venezuela	*See* Peru, and footnote			

Explanatory Notes.—France, Belgium, Italy, Greece, and Switzerland constitute what is known as the "Latin" Union, and their coins are alike in weight and fineness, occasionally differing, however, in name. The same system has been in part adopted by Spain, Servia, Bulgaria, Russia, Finland, and Roumania, but they have not joined the Union. Francs and centimes of France, Belgium, and Switzerland are respectively designated lire and centesimi in Italy; drachmai and lepta in Greece; dinars and paras in Servia; pesetas and centimos in Spain; leya and banis in Roumania; levas and stotinkis in Bulgaria. Similarly the Scandinavian countries, Norway, Sweden, and Denmark, employ coins of the same weight and fineness, their names being also alike. The Venezolano (of 10 decimos) of Venezuela and the sol (of 10 dineros) of Peru are alike interchangeable, as also are the peso of Chili, Colombia, and Uruguay.

In all British colonies, English money of every denomination is current. The exchange value of the money of those countries indicated by a * is determined by the rate of exchange for the day, and may be taken as approximately that given in the last column. The rate given in the daily papers generally represents the number of the standard coins (those printed in italics) that are equivalent to one sovereign. The Spanish rate is given in terms of the old dollar (= 2 escudos). The exchange value of the rupees depends on the rate for "India Council Bills." In all "bi-metallic" countries pure gold is taken as being worth 15½ times its weight of pure silver. This proportion corresponds to giving standard silver a constant value of 60¾d., as in the last column of the table.

THE ENGLISH MILE COMPARED WITH OTHER EUROPEAN MEASURES.

	English Stat. Mile.	English Geog. Mile.	French Kilomètre.	German Geog. Mile.	Russian Verst.	Austrian Mile.	Dutch Ure.	Norwegian Mile.	Swedish Mile.	Danish Mile.	Swiss Stunde.
English Statute Mile	1·000	0·867	1·609	0·217	1·508	0·212	0·289	0·142	0·151	0·213	0·335
English Geog. Mile	1·153	1·000	1·855	0·250	1·738	0·245	0·333	0·164	0·169	0·246	0·386
Kilomètre	0·621	0·540	1·000	0·135	0·937	0·132	0·180	0·088	0·094	01·83	0·208
German Geog. Mile	4·610	4·000	7·420	1·000	6·953	0·978	1·333	0·657	0·694	0·985	1·543
Russian Verst	0·663	0·575	1·067	0·144	1·000	0·141	0·192	0·094	0·100	0·142	0·222
Austrian Mile	4·714	4·089	7·586	1·022	7·112	1·000	1·363	0·672	0·710	1·006	1·578
Dutch Ure	3·458	3·000	5·565	0·750	5·215	0·734	1·000	0·493	0·520	0·738	1·157
Norwegian Mile	7·021	6·091	11·299	1·523	10·589	1·489	2·035	1·000	1·057	1·499	2·350
Swedish Mile	6·644	5·764	10·692	1·441	10·019	1·409	1·921	0·948	1·000	1·419	2·224
Danish Mile	4·682	4·062	7·536	1·016	7·078	0·994	1·354	0·667	0·705	1·080	1·567
Swiss Stunde	2·987	2·592	4·808	0·648	4·505	0·634	0·864	0·425	0·449	0·638	1·000

TABLE SHOWING SUMS PAYABLE IN FOREIGN CURRENCIES ON MONEY ORDERS ISSUED IN UNITED KINGDOM.

VALUE OF ENGLISH MONEY IN

English Money.			Belgium, France, and Algeria, Italy and Switzerland.		Germany and Heligoland.		Holland and Dutch East Indies.		Denmark, Iceland, Norway, and Danish West Indies.		Sweden.		Portugal, Azores, and Madeira.	Egypt.		United States, Canada, and Hawaii.	
£	s.	d.	Francs.	Cents.	Marks.	Pfen.	Florins.	Cents.	Kroner.	Ore.	Kroner.	Ore.	Reis.	Piastres.	Paras.	Dollars.	Cents.
0	0	1	0	10	0	8	0	5	0	7	0	7	10	0	16	0	2
0	0	2	0	20	0	17	0	10	0	15	0	15	30	0	32	0	4
0	0	3	0	30	0	25	0	15	0	22	0	22	50	1	8	0	6
0	0	4	0	40	0	34	0	20	0	30	0	30	70	1	25	0	8
0	0	5	0	50	0	42	0	20	0	37	0	37	90	2	1	0	10
0	0	6	0	60	0	51	0	25	0	45	0	45	110	2	17	0	12
0	0	7	0	70	0	59	0	30	0	52	0	52	130	2	33	0	14
0	0	8	0	80	0	68	0	35	0	60	0	60	150	3	10	0	16
0	0	9	0	90	0	76	0	40	0	68	0	68	170	3	26	0	18
0	0	10	1	0	0	85	0	45	0	75	0	75	190	4	2	0	20
0	0	11	1	10	0	93	0	50	0	83	0	83	200	4	18	0	22
0	1	0	1	20	1	2	0	55	0	90	0	90	220	4	35	0	24
0	2	0	2	50	2	4	1	15	1	81	1	81	450	9	30	0	48
0	3	0	3	70	3	6	1	75	2	72	2	72	680	14	25	0	73
0	4	0	5	0	4	8	2	35	3	63	3	62	910	19	20	0	97
0	5	0	6	30	5	10	2	95	4	53	4	53	1,140	24	15	1	21
0	6	0	7	50	6	12	3	55	5	44	5	43	1,370	29	10	1	46
0	7	0	8	80	7	14	4	15	6	35	6	34	1,590	34	5	1	70
0	8	0	10	0	8	16	4	75	7	26	7	24	1,820	39	0	1	94
0	9	0	11	30	9	18	5	35	8	16	8	15	2,050	43	35	2	19
0	10	0	12	60	10	20	5	95	9	7	9	6	2,280	48	30	2	43
0	11	0	13	80	11	22	6	55	9	98	9	96	2,510	53	25	2	67
0	12	0	15	10	12	24	7	15	10	89	10	87	2,740	58	20	2	93
0	13	0	16	30	13	26	7	75	11	79	11	78	2,970	63	15	3	16
0	14	0	17	60	14	28	8	35	12	70	12	68	3,190	68	10	3	40
0	15	0	18	90	15	30	8	95	13	61	13	60	3,420	73	5	3	65
0	16	0	20	10	16	32	9	55	14	52	14	50	3,650	78	0	3	89
0	17	0	21	40	17	34	10	15	15	42	15	40	3,880	82	35	4	12
0	18	0	22	60	18	36	10	75	16	33	16	31	4,110	87	30	4	38
0	19	0	23	90	19	38	11	35	17	24	17	21	4,340	92	25	4	62
1	0	0	25	20	20	40	11	95	18	15	18	12	4,570	97	20	4	87
2	0	0	50	40	40	80	23	90	36	30	36	24	9,140	195	0	9	74
3	0	0	75	60	61	20	35	85	54	45	54	36	13,710	292	20	14	61
4	0	0	100	80	81	60	47	80	72	60	72	48	18,280	390	0	19	48
5	0	0	126	0	102	0	59	75	90	75	90	60	22,850	487	20	24	35
6	0	0	151	20	122	40	71	70	108	90	108	72	27,420	585	0	29	22
7	0	0	176	40	142	80	83	65	127	5	126	84	31,990	682	20	34	9
8	0	0	201	60	163	20	95	60	145	20	144	96	36,560	780	0	38	96
9	0	0	226	80	183	60	107	55	163	35	163	8	41,130	877	20	43	83
10	0	0	252	0	204	0	119	50	181	50	181	20	45,700	975	0	48	70

INDIA.—Amounts of Money Orders, issued in the United Kingdom on India, are paid in Rupees, Annas, and Pies; the Rupee being the standard of value in India. As, however, the value of the Rupee is subject to constant variation, no tables of conversion can be given. All Orders on India are issued in Sterling, and the equivalent in Rupees is settled by the Post-office at Bombay on arrival of the Advice List from London.

TABLE SHOWING SUMS PAYABLE IN ENGLISH MONEY ON MONEY ORDERS ISSUED IN FOREIGN COUNTRIES, &c.

Belgium and Switzerland.		France, Algeria, and Italy.		Germany and Heligoland.		Holland and Dutch East Indies.		Denmark, Iceland, Norway, and Danish West Indies.		Sweden.		Portugal, Azores, and Madeira.	Egypt.		United States, Canada, and Hawaii.		English Money.		
Francs.	Cents.	Francs.	Cents.	Marks.	Pfen.	Florins.	Cents.	Kroner.	Ore.	Kroner.	Ore.	Reis.	Piastres.	Paras.	Dollars.	Cents.	£	s.	d.
0	11	0	11	0	9	0	6	0	8	0	8	20	0	16	0	3	0	0	1
0	22	0	21	0	18	0	11	0	16	0	16	40	0	32	0	5	0	0	2
0	32	0	32	0	26	0	16	0	23	0	23	60	1	8	0	7	0	0	3
0	43	0	42	0	35	0	21	0	31	0	31	80	1	25	0	9	0	0	4
0	53	0	53	0	43	0	26	0	38	0	38	100	2	1	0	11	0	0	5
0	64	0	63	0	52	0	31	0	46	0	46	120	2	17	0	13	0	0	6
0	74	0	74	0	60	0	36	0	54	0	54	140	2	33	0	15	0	0	7
0	85	0	84	0	69	0	41	0	61	0	61	160	3	10	0	17	0	0	8
0	95	0	95	0	77	0	46	0	69	0	69	180	3	26	0	19	0	0	9
1	6	1	5	0	86	0	51	0	76	0	76	200	4	2	0	21	0	0	10
1	16	1	16	0	94	0	56	0	84	0	84	210	4	18	0	23	0	0	11
1	27	1	26	1	3	0	61	0	91	0	91	230	4	35	0	25	0	1	0
2	53	2	52	2	5	1	22	1	82	1	82	460	9	30	0	49	0	2	0
3	80	3	78	3	8	1	83	2	73	2	72	690	14	25	0	74	0	3	0
5	6	5	4	4	10	2	44	3	64	3	63	920	19	20	0	98	0	4	0
6	33	6	30	5	13	3	4	4	55	4	53	1,150	24	15	1	22	0	5	0
7	59	7	56	6	15	3	65	5	46	5	44	1,380	29	10	1	47	0	6	0
8	86	8	82	7	18	4	26	6	37	6	35	1,600	34	5	1	71	0	7	0
10	12	10	8	8	20	4	87	7	28	7	25	1,830	39	0	1	95	0	8	0
11	39	11	34	9	23	5	48	8	19	8	16	2,060	43	35	2	20	0	9	0
12	65	12	60	10	25	6	8	9	10	9	6	2,290	48	30	2	44	0	10	0
13	92	13	86	11	28	6	69	10	1	9	97	2,520	53	25	2	68	0	11	0
15	18	15	12	12	30	7	30	10	92	10	88	2,750	58	20	2	93	0	12	0
16	45	16	38	13	33	7	91	11	83	11	78	2,980	63	15	3	17	0	13	0
17	71	17	64	14	35	8	52	12	74	12	69	3,200	68	10	3	41	0	14	0
18	98	18	90	15	38	9	12	13	65	13	59	3,430	73	5	3	66	0	15	0
20	24	20	16	16	40	9	73	14	56	14	50	3,660	78	0	3	90	0	16	0
21	51	21	42	17	43	10	34	15	47	15	41	3,890	82	35	4	14	0	17	0
22	77	22	68	18	45	10	95	16	38	16	31	4,120	87	30	4	39	0	18	0
24	4	23	94	19	48	11	56	17	29	17	21	4,350	92	25	4	63	0	19	0
25	30	25	20	20	50	12	16	18	20	18	12	4,570	97	20	4	87	1	0	0
50	60	50	40	41	0	24	32	36	40	36	24	9,140	195	0	9	74	2	0	0
75	90	75	60	61	50	36	48	54	60	54	36	13,710	292	20	14	61	3	0	0
101	20	100	80	82	0	48	64	72	80	72	48	18,280	390	0	19	48	4	0	0
126	50	126	0	102	50	60	80	91	0	90	60	22,850	487	20	24	35	5	0	0
151	80	151	20	123	0	72	96	109	20	108	72	27,420	585	0	29	22	6	0	0
177	10	176	40	143	50	85	12	127	40	126	84	31,990	682	20	34	9	7	0	0
202	40	201	60	164	0	97	28	145	60	144	96	36,560	780	0	38	96	8	0	0
227	70	226	80	184	50	109	44	163	80	163	8	41,130	877	20	43	83	9	0	0
253	0	252	0	205	0	121	60	182	90	181	20	45,700	975	0	48	70	10	0	0

NOTE.—In calculating amounts payable in the United Kingdom, it must be understood that the Foreign Offices of Exchange reserve to themselves the power of dealing with fractions of a penny as they may deem most convenient. For example, an Order issued in Denmark for 1 Kroner may be credited to this country either as 1s. 1d. or 1s. 2d. An Order issued in Switzerland for 53 Francs may be credited either as £2. 1s. 10d. or £2. 1s. 11d.

STAMPS, TAXES, EXCISE DUTIES, &c.

STAMP DUTIES.

	£	s.	d.
AFFIDAVIT, or Statutory Declaration, except declaration forming part of an application for a patent	0	2	6
AGREEMENT, or Memorandum of Agreement, under hand only, not otherwise charged	0	0	6
APPRAISEMENT, or VALUATION of any estate or effects where the amount of the appraisement shall not exceed £5	0	0	3
Not exceeding £10	0	0	6
,, 20	0	1	0
,, 30	0	1	6
,, 40	0	2	0
Exceeding £500	1	0	0

Not exceeding £50	0	2	6
,, 100	0	5	0
,, 200	0	10	0
,, 500	0	15	0

APPRENTICESHIP INDENTURES—On each instrument	0	2	6
[By the Customs and Inland Revenue Act, 1890, there is no longer an *ad valorem* stamp duty upon an instrument of apprenticeship where there is a premium or consideration.]			
ARMORIAL BEARINGS	1	1	0
If used on any carriage	2	2	0
ARTICLES of clerkship to attorney or solicitor in England or Ireland	80	0	0
In Superior Courts, Scotland	60	0	0
BANKERS' NOTES payable on demand and re-issuable—Not above £1	0	0	5
Not above £2	0	0	10
Not exceeding £100	0	8	6
BILLS OF EXCHANGE AND PROMISSORY NOTES, of any kind whatsoever except bank notes—Not exceeding £5	0	0	1
Exceeding £5 and not exceeding £10	0	0	2
,, 10 ,, 25	0	0	3
,, 25 ,, 50	0	0	6
,, 50 ,, 75	0	0	9
,, 75 ,, 100	0	1	0
Every £100, and also for any fractional part of £100, of such amount..	0	1	0
By Stamp Act of 1850 (33 and 34 Vict., c. 97), the distinction between inland and foreign bills of exchange was abolished.			
BILL OF LADING	0	0	6
CERTIFICATE—Of goods, &c., being duly entered inwards	0	4	0
Of birth, marriage, or death (certified copy of)	0	1	0

	£	s.	d.
DRAFT, or Order, or Letter of Credit, for payment of any sum to bearer or order, on demand	0	0	1
CHARTER PARTY	0	0	6
PASSPORT	0	0	6
STOCK CERTIFICATE to bearer for each £1,000 or part £1,000	0	7	6

TRANSFERS.

	£	s.	d.
Where the amount or value of the consideration for the sale does not exceed £5	0	0	6

		£	s.	d.			£	s.	d.
Exceeds £5	and does not exceed £10	0	1	0	Exceeds £125	and does not exceed £150	0	15	0
,, 10	,, 15	0	1	6	,, 150	,, 175	0	17	6
,, 15	,, 20	0	2	0	,, 175	,, 200	1	0	0
,, 20	,, 25	0	2	6	,, 200	,, 225	1	2	6
,, 25	,, 50	0	5	0	,, 225	,, 250	1	5	0
,, 50	,, 75	0	7	6	,, 250	,, 275	1	7	6
,, 75	,, 100	0	10	0	,, 275	,, 300	1	10	0
,, 100	,, 125	0	12	6	,, 300				

	£	s.	d.
For every £50, and also for any fractional part of £50, of such amount or value	0	5	0
Conveyance or Transfer of any kind not described as above	0	10	0

LIMITED LIABILITY COMPANIES.—A statement of the amount of nominal capital to be raised by shares of any company to be registered with limited liability shall be delivered to the Registrar of Joint Stock Companies in England, Scotland, or Ireland, and a statement of the amount of any increase of registered capital of any company now registered, or to be registered, with limited liability shall be delivered to the said Registrar, and every such statement shall be charged with an *ad valorem* stamp duty of 2s. for every £100, and any fraction of £100, over any multiple of £100 of the amount of such capital or increase of capital as the case may be.

	£	s.	d.
MARRIAGE LICENSE, special, England and Ireland	5	0	0
,, not special	0	10	0
MEDICINE VENDORS, Great Britain [A separate license is required for each place where sold.]	0	5	0

PATENT FOR INVENTIONS (LETTERS).

	£	s.	d.
Up to Sealing:—			
On application for provisional protection	1	0	0
On filing complete specification	3	0	0
Or on filing complete specification with first application	4	0	0
Before the end of four years from date of Patent:—			
On certificate of renewal	50	0	0
Before the end of seven years:—			
On certificate of renewal	100	0	0
In lieu of the fees of £50 and £100 the following annual fees:—			
Before the expiration of the 4th, 5th, 6th, and 7th years from the date of patent	10	0	0
8th and 9th ditto	15	0	0
10th, 11th, 12th, and 13th ditto	20	0	0
RECEIPT, £2 or upwards (penalty for giving receipt without stamp, £10)	0	0	1

HOUSE DUTY.

On inhabited houses hitherto paying at the rate of 6d. for every 20s. of the annual value:—			
If annual rent does not exceed £40 the rate is reduced to	0	0	2
If annual rent is £40 to £60	0	0	4
On inhabited houses hitherto paying at the rate of 9d.:—			
If annual rent does not exceed £40	0	0	3
If annual rent is £40 to £60	0	0	6

INCOME TAX.

Incomes of £150 per annum (Schedules A C D and E) and upwards are taxed at the rate of 6d. in the £. Farmers in England (Schedule B), 3d. in the £; in Scotland and Ireland, 2¼d. in the £.

Exemption and Abatement.—Incomes less than £150 a year are exempt. On incomes amounting to £150 a year and less than £400 a year there is an abatement upon £120 of assessed income.

VARIOUS EXCISE LICENSES AND DUTIES.

On a license to be taken out by a brewer for sale	1	0	0
Occupiers of houses not exceeding £10 annual value	0	4	0
,, ,, ,, ,, £8 ,,	(exempt)		
BEER RETAILERS:—			
Beer and Wine not drunk on the premises	1	5	0
Beer and Wine drunk on the premises	4	0	0
If the annual value of the publican's house in which the retailer shall reside or retail spirits is under £10, the duty is	4	10	0

	£	s.	d.
If £10, and under £15	6	0	0
,, 15, ,, 20	8	0	0
,, 20, ,, 25	11	0	0
,, 25, ,, 30	14	0	0
,, 30, ,, 40	17	0	0
,, 40, ,, 50	20	0	0
,, 50, ,, 100	25	0	0
Dogs of any kind (penalty £5)	0	7	6
Game licenses, if taken out after 31st July and before 1st November, to expire on 31st July following	3	0	0
After 31st July, expire 31st October	2	0	0
After 31st October, expire 31st July	2	0	0
Gamekeepers	2	0	0
Game Dealer's License	2	0	0
Gun (License to carry)	0	10	0
Hawkers and Pedlars, per year	2	0	0
House Agents, letting furnished houses above £25 a year	2	0	0
Passenger vessels, on board which liquors and tobacco are sold, yearly	5	0	0
Pawnbrokers	7	10	0
Plate Dealers selling 2oz. gold and 3oz. silver, and upwards	5	15	0
,, ,, under that weight	2	6	0
Retailers of sweets	1	5	0
Retailers of wine, England and Ireland	2	10	0
,, (Grocers) Scotland	2	4	1
Tobacco and snuff, dealers in [A separate license is required for each place where sold.]	0	5	3
Vinegar makers	5	5	0

POSTAL REGULATIONS, SAVINGS BANKS, &c.

RATES OF POSTAGE

To and from all parts of the United Kingdom, for prepaid letters:—

Not exceeding 1 oz. ..... 1d.	Exceeding 6 oz., not exceeding 8 oz. 3d.
Exceeding 1 oz., not exceeding 2 oz. 1½d.	,, 8 ,, ,, 10 ,, 3½d.
,, 2 ,, ,, 4 ,, 2d.	,, 10 ,, ,, 12 ,, 4d.
,, 4 ,, ,, 6 ,, 2½d.	,, 12 ,, ,, 14 ,, 4½d.

and so on at the rate of ½d. for every additional 2 oz.

A letter posted unpaid is chargeable on delivery with double postage, and a letter posted insufficiently paid is chargeable with double the deficiency.

No letter is to exceed one foot six inches in length, nine inches in width, and six inches in depth, unless it be sent to or from a Government Office.

A penny stamp is now issued which can be used either as a postage or receipt stamp.

INLAND BOOK AND CIRCULAR POST.

The Book Post rate is one halfpenny for every 2 oz. or fraction of 2 oz. Every Book Packet must be posted either without a cover or in a cover entirely open at the ends. No Book Packet may exceed 5 lb. in weight, or one foot six inches in length, nine inches in width, and six inches in depth, unless it be sent to or from a Government Office.

Any Book Packet which is found to contain a letter, or communication of the nature of a letter (not being a circular letter), or not wholly printed, or any enclosure sealed or in any way closed against inspection, or any other enclosure not allowed by the regulations of the Book Post, will be treated as a letter, and charged double the deficiency of the letter postage.

Circular Letters posted in covers entirely open at both ends, the whole or greater part of which are printed, engraved, or lithographed, and which, according to the internal evidence, are being sent to several persons in identical terms, may be sent at book rate.

POSTAGE ON INLAND REGISTERED NEWSPAPERS.

Prepaid Rate.—On each Registered Newspaper, whether posted singly or in a packet, the postage when prepaid is one halfpenny; but a packet containing two or more Registered Newspapers is not chargeable with a higher rate of postage than would be chargeable on a Book Packet of the same weight—viz., one halfpenny for every 2 oz. or fraction of 2 oz.

POST CARDS.

Post Cards, bearing a halfpenny impressed stamp, are available for transmission between places in the United Kingdom only. They are sold at ten for 5½d., or of finer quality at ten for 6d. They can also be had in smaller numbers or singly. Reply Cards are now sold.

Foreign Postal Cards, 1d., 1½d., and 2d. each.

POST-OFFICE TELEGRAMS.

The charge for telegrams throughout the United Kingdom is 6d. for the first twelve words, which must include addresses of sender and receiver. It is not, however, necessary to telegraph sender's address; and by this omission, an average of seven words may be sent for 6d.

Free addresses are abolished; numbers in addresses are counted as one word. After the first twelve words the charge is one halfpenny a word.

For the rates charged for foreign telegrams, *see* the Post-office Guide, published quarterly.

MONEY ORDERS FOR THE UNITED KINGDOM.

Money Orders are granted in the United Kingdom at the following rates:—

For a sum not exceeding £1	2d.
For a sum exceeding £1 and not exceeding £2	3d.
„ „ £2 „ „ £4	4d.
„ „ £4 „ „ £7	5d.
„ „ £7 „ „ £10	6d.

POSTAL ORDERS.

Postal Orders are issued at the following rates: on those for 1/- and 1/6 the charge is ½d.; for 2/-, 2/6, 3/-, 3/6, 4/-, 4/6, 5/-, 7/6, 10/-, 10/6, the charge is 1d.; for 15/- and 20/-, 1½d.

INLAND PARCEL POST.—POSTING OF PARCELS.

Parcels must be handed in at a Post-office Counter, and must not be dropped into a Letter Box. If a Parcel marked "Parcel Post" is not posted in accordance with this regulation it will be charged on delivery with a fine of 1d.

POSTAGE.

All Parcels must be prepaid by stamps affixed by the senders, and the rates of postage are as follows:—

	s.	d.
For a Parcel not exceeding 1 lb. in weight	0	3
For a Parcel exceeding 1 lb. in weight and not exceeding 2 lbs.	0	4½
„ „ 2 lbs. „ „ „ 3 lbs.	0	6
„ „ 3 lbs. „ „ „ 4 lbs.	0	7½
„ „ 4 lbs. „ „ „ 5 lbs.	0	9
„ „ 5 lbs. „ „ „ 6 lbs.	0	10½
„ „ 6 lbs. „ „ „ 7 lbs.	1	0
„ „ 7 lbs. „ „ „ 8 lbs.	1	1½
„ „ 8 lbs. „ „ „ 9 lbs.	1	3
„ „ 9 lbs. „ „ „ 10 lbs.	1	4½
„ „ 10 lbs. „ „ „ 11 lbs.	1	6

LIMITATION OF WEIGHT.

No Parcel exceeding 11 lbs. in weight can be received for transmission.

LIMITATION OF SIZE.

No Parcel may exceed 3 ft. 6 in. in length, or 6 ft. in length and girth combined. Thus, a Parcel 3 ft. 6 in. in length may not measure more than 2 ft. 6 in. in girth at its widest part; but a parcel of shorter length, say 3 ft., or 2 ft. 8 in., may measure respectively 3 ft. or 3 ft. 4 in. in its widest girth.

INSURANCE AND COMPENSATION.

The Postmaster-General will give Compensation for the Loss and Damage of Inland Parcels according to the following scale, viz.:—

1. Where no fee except Postage is paid the Postmaster-General will give Compensation to an amount not exceeding..... £1
2. Where in addition to the Postage an Insurance Fee of 1d. is paid, the Postmaster-General will give Compensation to an amount not exceeding £5
3. Where in addition to the Postage an Insurance Fee of 2d. is paid the Postmaster-General will give Compensation to an amount not exceeding £10

In no case will a larger amount of Compensation than £10 be paid. The Compensation given in case of damage will be in proportion to that which would have been given had the Parcel been lost.

No legal liability to give compensation in respect of any Parcel will attach to the Postmaster-General, either personally or in his official capacity, and whether or not an insurance fee has been paid. Accordingly the decision of the Postmaster-General as to all questions of Compensation will be final.

INLAND PATTERN AND SAMPLE POST.

Trade Patterns and Samples of Merchandise may be sent between places in the United Kingdom at the following rates of postage:—

For a Packet not exceeding 2 oz.....	½d.
,, ,, ,, 4 oz.....	1d.
,, ,, more than 4 oz. but not exceeding 6 oz.	1½d.
,, ,, ,, 6 oz. ,, ,, 8 oz.	2d.

No Packet to exceed 8 oz. in weight. Limits of dimension are—12 ft. by 8 ft. 4 in. If either of these conditions be infringed the Packet will not be forwarded, but returned to the sender; similar conditions as to insufficiently paid postage obtain in connection with the above.

REGISTRATION.

By the prepayment of a fee of twopence, any letter, newspaper, or book packet may be registered to any place in the United Kingdom or the British Colonies. Registered letter envelopes, bearing a twopenny stamp embossed on the flap for the payment of the registration fee, are to be purchased of different sizes.

Registered Letters are now insured against loss or damage, according to the following scale:—

An amount not exceeding £5, on payment of registration fee only.

,, ,, £10, ,, a fee of 2d. in addition to registration fee.

POST-OFFICE SAVINGS BANKS.

No deposit of less than a shilling is received, nor any pence, and not more than £30 in one year. No further deposit is allowed when the amount standing in depositor's name exceeds £150, exclusive of interest. Interest is allowed at the rate of 2½ per cent (or sixpence in the pound) per annum—that is at the rate of one halfpenny per pound per month. When the principal and interest reach to £200, no further interest is paid until the sum at the depositor's credit is reduced below that amount.

At every Post-office in the United Kingdom forms for making small deposits are now issued gratuitously. Each form has twelve divisions, in each of which a penny postage stamp can be placed; when the twelve are filled in it is received at any Post-office Savings Bank as a shilling.

Any person can now invest, at any Post-office Savings Bank, small sums in Government Stock. Not less than £10, and not more than £100, in any one year. The amount held by any one investor must not exceed £300.

REGISTERS OF BIRTHS, MARRIAGES, AND DEATHS.

These are now kept at Somerset House, and may be searched on payment of the fee of one shilling. If a certified copy of any entry be required, the charge for that, in addition to the shilling for the search, is two shillings and sevenpence, which includes a penny for stamp duty. The registers contain an entry of births, deaths, and marriages since 1st July, 1837.

BANK HOLIDAYS, 1891.

ENGLAND.

Easter Monday	March 30
Whit Monday	May 18
First Monday in August	August 3
Boxing Day (Saturday)	December 26

SCOTLAND.

New Year's Day	January 1
Good Friday	March 27
First Monday in August	August 3
Christmas Day	December 25

LAW SITTINGS, 1891.

	Begin.	End.
Hilary Sittings	January 12	March 25.
Easter ,,	April 7	May 15.
Trinity ,,	May 26	Aug. 12.
Michael. ,,	October 24	Dec. 21.

ECLIPSES.

In the year 1891 there will be two eclipses of the sun and two of the moon :—

1.—May 23rd, a total eclipse of the moon, partly visible at Greenwich. The moon rises at 7-55 p.m., the last contact with the shadow occurs at 8-17.

2.—June 6th, an annular eclipse of the sun. At Greenwich the partial eclipse begins at 5-2 p.m., the greatest phase at 5-47 p.m., and the eclipse ends at 6-24 p.m.

3.—November 15th and 16th, a total eclipse of the moon, visible at Greenwich. The first contact occurs at 10-35 p.m., beginning of total phase at 11-37 p.m., middle of eclipse 0-19 a.m., end of total phase 1-0 a.m., and last contact at 2-3 a.m.

4.—December 1st, a partial eclipse of the sun, visible only in high Southern latitudes.

TRANSFER DAYS, &c., AT THE BANK OF ENGLAND.

	Dividends due.
Bank Stock	April 5, Oct. 5
New Two-and-a-Half per Cent Annuities	*Quarterly.* Jan. 5, Apl. 5, July 5, Oct. 5
New Two-and Three-qrs. per Cent Annuities	,,

	Dividends due.
	Quarterly.
Two-and-Three-quarters per Cent Consols	Jan. 5, Apl. 5, July 5, Oct. 5
India Three-and-a-Half per Cent	,,
Annuities for 30 years	April 5, Oct. 5

TRANSFER DAYS.

Tuesday, Wednesday, Thursday, Friday; Mondays and Saturdays are private transfer days. Hours for buying and selling, 10 to 1, and transferring, 11 to 3; accepting and payment of dividends, 9 to 4. No transfer after 2 o'clock on Saturdays.

PAYMENT OF DIVIDENDS.

Dividends are paid in one of the following modes:—

I. To the Stockholders personally, or to their attorneys, at the Bank of England. [Stockholders may arrange for the receipt of their dividends, free of charge, at any of the country branches, on application to the agent.]

II. By transmission of dividend warrants by post, at the risk of the Stockholder, under the following regulations:—

1. Any Stockholder residing within the United Kingdom, who desires to have his dividend warrant sent to his address by post, must fill up a form of application, to be obtained at the Bank or at any of its branches, and for English Government Stocks at any Money-order Office.

2. In the case of joint accounts, the application must be signed by all the members of the account, directing the warrant to be sent to one of them at a given address.

NATIONAL DEBT CONVERSION OF STOCK.

The three classes of Three per Cents affected by the alterations of the Chancellor of the Exchequer's Budget are Consols, Reduced Threes, and New Threes, the dividends on which are paid half-yearly—those on Consols on January 5th and July 5th, those on Reduced Threes and New Threes on April 5th and October 5th.

Consols and Reduced Threes cannot be redeemed without a year's notice.

Conversion of New Threes took effect on April 5th, 1888, and the dividends on the New Stock were made payable quarterly at the rate of 3 per cent per annum for the first year, ending April 5th, 1889, then at the rate of 2¾ per cent per annum for fourteen years, ending April 5th, 1903, and afterwards at the rate of 2½ per cent per annum.

The New Stock is guaranteed against redemption for a period of thirty-five years, that is to say, until April 5th, 1923.

RAILWAY ACCIDENTS.

PROPORTION OF PASSENGERS KILLED AND INJURED FROM CAUSES BEYOND THEIR OWN CONTROL.

THE FOLLOWING STATEMENT SHOWS THE PROPORTION OF PASSENGERS RETURNED AS KILLED AND INJURED FROM CAUSES BEYOND THEIR OWN CONTROL, IN PASSENGER-JOURNEYS, FOR THE YEARS 1874 TO 1889:—

YEAR.	Number of Passengers Killed and Injured from causes beyond their own control, from Accidents to Trains.		Number of Passenger Journeys (exclusive of Journeys by Season-ticket Holders).	Proportion returned as Killed and Injured (from causes beyond their own control) to number carried.	
	Killed.	Injured.		Killed.	Injured.
1874.....	86	1,613	477,840,411	1 in 5,556,284	1 in 296,243
1875.....	17	1,212	506,975,234	1 in 29,882,073	1 in 418,296
1876.....	38	1,279	538,287,295	1 in 14,165,455	1 in 420,865
1877.....	11	664	551,593,654	1 in 50,144,876	1 in 830,713
1878.....	24	1,173	565,024,455	1 in 23,542,685	1 in 481,692
1879.....	*75	602	562,732,890	1 in 7,503,105	1 in 934,772
1880.....	29	904	603,885,025	1 in 20,823,586	1 in 668,013
1881.....	23	987	622,160,000	1 in 27,050,435	1 in 630,354
1882.....	18	803	654,838,295	1 in 36,379,905	1 in 815,489
1883.....	11	662	683,718,137	1 in 62,156,194	1 in 1,032,806
1884.....	31	864	694,991,860	1 in 22,419,092	1 in 804,338
1885.....	6	436	697,213,031	1 in 116,202,171	1 in 1,599,112
1886.....	8	615	725,584,390	1 in 90,698,049	1 in 1,179,812
1887.....	25	538	733,670,000	1 in 29,346,800	1 in 1,363,699
1888.....	11	594	742,830,000	1 in 67,530,000	1 in 1,250,555
1889.....	‡88	‡1,016	775,183,073	1 in 8,808,875	†1 in 762,975

* Including 73 persons lost in the Tay Bridge disaster in the year 1879.

† If the journeys of season-ticket holders, which have been estimated for the past year at 140,000,000, are included, the proportions would be nearly 1 killed in 80 millions, and 1 injured in one-and-a-half millions.

‡ Including 80 killed and 262 injured in a collision near Armagh.

BAROMETER INSTRUCTIONS.

COMPILED BY THE LATE ADMIRAL FITZROY, F.R.S.

THE barometer should be set regularly by a duly-authorised person about sunrise, noon, and sunset.

The words on scales of barometers should not be so much regarded for weather indications as the RISING or FALLING of the mercury; for if it stand at CHANGEABLE (29·50) and then rise towards FAIR (30·00) it presages a change of wind or weather, though not so great as if the mercury had risen higher; and, on the contrary, if the mercury stand above FAIR and then fall it presages a change, though not to so great a degree as if it had stood lower; beside which, the direction and force of wind are not in any way noticed.

It is not from the point at which the mercury may stand that we are alone to form a judgment of the state of the weather, but from its RISING or FALLING; and from the movements of immediately PRECEDING days as well as hours, keeping in mind effects of change of DIRECTION, and dryness or moisture, as well as alteration of force or strength of wind.

It should always be remembered that the state of the air FORETELLS COMING weather rather than shows the weather that is PRESENT—(an invaluable fact too often overlooked)—that the longer the time between the signs and the change foretold by them the longer such altered weather will last; and, on the contrary, the less the time between a warning and a change the shorter will be the continuance of such foretold weather.

If the barometer has been about its ordinary height, say near 30 inches at the sea-level, and is steady on rising, while the thermometer falls and dampness becomes less, north-westerly, northerly, north-easterly wind, or less wind, less rain or snow may be expected.

On the contrary, if a fall takes place with a rising thermometer and increased dampness, wind and rain may be expected from the south-eastward, southward, or south-westward. A fall with low thermometer foretells snow.

When the barometer is rather below its ordinary height, say down to near 29½ inches (at sea-level), a rise foretells less wind, or a change in its direction towards the northward, or less wet; but when it has been very low, about 29 inches, the first rising usually precedes or indicates strong wind—at times heavy squalls—from the north-westward, northward, or north-eastward, AFTER which violence a gradually rising glass foretells improving weather; if the thermometer falls, but if the warmth continues, probably the wind will back (shift against the sun's course), and more southerly or south-westerly wind will follow, especially if the barometer rise is sudden.

The most dangerous shifts of wind, or the HEAVIEST northerly gales, happen soon after the barometer first rises from a very low point; or if the wind veers GRADUALLY, at some time afterwards.

BAROMETER INSTRUCTIONS.

Indications of approaching change of weather and the direction and force of winds are shown less by the height of the barometer than by its falling or rising. Nevertheless, a height of more than 30 (30·00) inches (at the level of the sea) is indicative of fine weather and MODERATE winds, except from east to north, OCCASIONALLY.

A rapid rise of the barometer indicates unsettled weather, a slow movement the contrary; as likewise a STEADY barometer, when continued and with dryness, foretells very fine weather.

A rapid and considerable fall is a sign of stormy weather, and rain or snow. Alternate rising and sinking indicates unsettled or threatening weather.

The greatest depressions of the barometer are with gales from S.E., S., or S.W.; the greatest deviations, with wind from N.W., N., or N.E., or with calm.

A sudden fall of the barometer, with a westerly wind, is sometimes followed by a violent storm from N.W., N., or N.E.

If a gale sets in from the E. or S.E., and the wind veers by the south, the barometer will continue falling until the wind is near a marked change, when a lull MAY occur; after which the gale will soon be renewed, perhaps suddenly and violently, and the veering of the wind towards the N.W., N., or N.E. will be indicated by a rising of the barometer, with a fall of the thermometer.

After very warm and calm weather a storm or squall, with rain, may follow; likewise at any time when the atmosphere is HEATED much above the USUAL temperature of the season.

To know the state of the air not only the barometer AND THERMOMETER, but appearances of the sky should be vigilantly watched.

SIGNS OF WEATHER.

WHETHER clear or cloudy, a rosy sky at sunset presages fine weather; a red sky in the morning, bad weather, or much wind, perhaps rain; a grey sky in the morning, fine weather; a high dawn, wind; a low dawn, fair weather.*

Soft-looking or delicate clouds foretell fine weather, with moderate or light breezes; hard-edged, oily-looking clouds, wind. A dark, gloomy blue sky is windy, but a light, bright blue sky indicates fine weather. Generally, the softer the clouds look, the less wind (but perhaps more rain) may be expected; and the harder, more "greasy," rolled, tufted, or ragged, the stronger the coming wind will prove. Also a bright yellow sky at sunset presages wind; a pale yellow, wet; and thus, by the prevalence of red, yellow, or grey tints, the coming weather may be foretold very nearly—indeed, if aided by instruments, almost exactly.

* A high dawn is when the first indications of daylight are seen above a bank of clouds. A low dawn is when the day breaks on or near the horizon, the first streaks of light being very low down.

Small inky-looking clouds foretell rain; light scud clouds driving across heavy masses show wind and rain, but if alone may indicate wind only.

High upper clouds crossing the sun, moon, or stars in a direction different from that of the lower clouds, or the wind then felt below, foretell a change of wind.

After fine, clear weather, the first signs in the sky of a coming change are usually light streaks, curls, wisps or mottled patches of white distant clouds, which increase, and are followed by an overcasting of murky vapour that grows into cloudiness. This appearance, more or less oily or watery as wind or rain will prevail, is an infallible sign.

Light, delicate, quiet tints or colours, with soft, undefined forms of clouds, indicate and accompany fine weather; but gaudy or unusual hues, with hard, definitely-outlined clouds, foretell rain, and probably strong wind.

When sea-birds fly out early and far to seaward, moderate wind and fair weather may be expected. When they hang about the land, or over it, sometimes flying inland, expect a strong wind, with stormy weather. As many creatures beside birds are affected by the approach of rain or wind, such indications should not be slighted by an observer who wishes to foresee weather.

Remarkable clearness of atmosphere near the horizon, distant objects such as hills unusually visible, or raised (by refraction),† and what is called a "good HEARING day," may be mentioned among signs of wet, if not wind, to be expected.

More than usual twinkling of the stars, indistinctness or apparent multiplication of the moon's horns, haloes, "wind-dogs" (fragments or pieces of rainbows, sometimes called "wind-galls") seen on detached clouds, and the rainbow, are more or less significant of increasing wind, if not approaching rain with or without wind.

Lastly, the dryness or dampness of the air, and its temperature (for the season), should ALWAYS be considered WITH OTHER indications of change or continuance of wind and weather.

On barometer scales the following contractions may be useful:—

RISE	FALL	
FOR	FOR	
N.E.LY	S.W.LY	When the wind shifts against the sun,
(N.W.-N.-E.)	(S.E.-S.-W.)	Trust it not, for back it will run.
DRY	WET	
OR	OR	FIRST rise after very low
LESS	MORE	Indicates a stronger blow.
WIND.	WIND.	
—	—	Long foretold—long last;
EXCEPT	EXCEPT	Short notice—soon past.
WET FROM	WET FROM	
N.ED.	N.ED.	

† Much refraction is a sign of easterly wind.

METEOROLOGICAL TABLE.

This Table is used to suggest what kind of weather will probably follow the changes of the Moon.

Time of New or of Full Moon, or of entering the First or Last Quarter.	Weather likely to follow during the Quarter.	
	In Summer.	In Winter.
12 at Noon to 2 Afternoon.....	Very rainy	Snow or rain.
2 Afternoon to 4 ,, ...	Changeable	Fair and mild.
4 ,, to 6 ,, ...	Fair	Fair.
6 ,, to 10 ,, ...	Fair, if wind North-West	Fair, frosty, if North or North-East.
	Rainy, if South or South-West	Rain or snow, if South or South-West.
10 ,, to 12 Midnight	Fair	Fair and frosty.
12 Midnight to 2 Morning	Fair	Hard frost, unless South or West.
2 Morning to 4 ,, ...	Cold, with showers	Snow and stormy.
4 ,, to 6 ,, ...	Rain	Snow and stormy.
6 ,, to 8 ,, ...	Wind and rain	Stormy.
8 ,, to 10 ,, ...	Changeable	Cold rain, if wind West.
		Snow, if East.
10 ,, to 12 Noon	Frequent showers	Cold, with high wind.

REMARKS.

The nearer the time of the Moon's entrance, at full, change, and quarters, is to midnight, that is, within two hours before and after midnight, the fairer the weather will be; but the nearer to noon, the less fair. Also the Moon's entrance, at full, change, and quarters, during six of the afternoon hours, namely, from four to ten, may be followed by fair weather; but this is mostly dependent upon the wind. The same entrance during all the hours after midnight is, with the exception of the two first, unfavourable to fair weather.

MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1890.

(From Official Sources.)

ROYAL OBSERVATORY, GREENWICH.—Height of Station above Sea Level 159 Feet.

Year 1889–90.	Pressure of Atmosphere in Month.		Temperature of Air in Month.						Mean Temperature.		Mean Reading of Thermometer.		Rain.	
Month.	Mean.	Range.	Highest.	Lowest.	Range.	Mean of all Highest.	Mean of all Lowest.	Mean Daily Range.	Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	Amount Collected.
1889	In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Days.	In.
October.....	29·521	1·056	61·9	34·9	27·0	56·4	42·2	14·2	48·6	45·5	91·1	34·9	17	3·93
November....	30·043	1·171	61·1	27·7	33·4	49·7	38·8	10·9	44·3	41·2	63·3	32·7	9	0·78
December....	30·010	1·342	53·1	22·0	31·1	41·7	32·5	9·2	37·6	35·2	47·5	27·6	13	1·44
1890														
January.....	29·760	1·776	55·0	26·5	28·5	48·5	38·2	10·3	43·4	39·9	62·8	32·9	19	2·09
February	30·016	1·313	50·5	26·6	23·9	43·0	32·9	10·1	37·5	34·2	68·5	28·6	9	1·04
March	29·665	1·313	68·8	13·1	55·7	51·5	35·8	15·7	43·2	37·1	90·6	29·4	14	1·97
April	29·644	1·114	63·4	31·1	32·3	55·0	37·8	17·2	45·6	38·1	107·1	30·4	14	1·77
May	29·666	0·889	77·1	38·5	38·6	66·3	44·4	21·9	54·8	44·7	125·5	36·2	14	1·34
June	29·821	1·206	80·2	36·6	43·6	69·2	49·6	19·6	58·1	51·5	122·5	42·1	16	2·54
July	29·735	0·964	78·1	41·9	36·2	70·4	51·6	18·8	59·5	53·1	122·5	46·2	18	4·50
August	29·715	0·891	82·8	39·1	43·7	70·7	51·2	19·5	59·3	52·8	121·7	45·0	15	2·54
September....	29·979	0·866	77·7	37·1	40·6	71·2	50·4	20·8	59·5	53·2	123·7	43·8	6	0·65

MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1890.

(From Official Sources.)

THE OBSERVATORY, LIVERPOOL.—HEIGHT OF STATION ABOVE SEA LEVEL 197 FEET.

YEAR 1889-90.	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.						MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.	
						MEAN								
Month.	Mean.	Range.	Highest.	Lowest.	Range.	of all Highest.	of all Lowest.	Daily Range.	Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	Amount Collected.
1889	In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	* Deg.	* Deg.	Days.	In.
October.....	29·440	1·470	56·0	38·2	17·8	52·8	43·4	9·4	47·3	45·2	84·1	37·9	19	2·98
November....	29·949	1·234	58·8	33·1	22·7	49·2	41·7	7·5	45·1	40 8	71·2	35·3	18	2·49
December....	29·891	1·477	54 0	26·8	27·2	44·4	36·0	8·4	40·1	35·3	56·2	28·3	16	2·46
1890														
January.....	29·560	1·837	57·0	22·5	34·5	48·3	37·9	10·4	42·8	38·3	66·7	31·8	22	3·09
February	29·995	1·119	49·5	28·7	28·8	42·3	34·2	8·1	37·6	34·1	72·3	28·4	9	0·48
March	29·554	1·195	60·0	25·7	34·3	48·8	38·8	10·0	42·8	37·3	88·6	31·2	17	1·75
April	29·610	0·951	58·0	34·5	23·5	51·6	39·7	11·9	44·4	37·5	101·5	31·4	16	1·15
May	29·604	0·902	74·4	41·8	32·6	61·6	47·2	14·4	52·7	43·7	117·5	40·8	14	1·64
June	29·788	1·234	67·9	43·8	24·1	62·3	51·5	10·8	55·1	49·2	117·7	45·0	18	2·62
July	29·660	0·954	69·0	47·9	21·1	63·3	53·2	10·1	56 8	49·9	125·5	46·8	18	2·40
August	29·637	0·949	73·8	45·8	28·0	63·4	53·1	10 3	56·7	49·6	119 8	46·1	20	4·55
September....	29·868	0·962	76·6	43·5	33·1	65·0	53·8	11·2	58·3	52·0	108·6	47·4	13	1·18

* The Mean temperature inserted in these two columns is taken from the Returns of Stonyhurst College, Lancashire, as they were not supplied by Liverpool. The height of station above sea level is 363 feet.

MONTHLY METEOROLOGICAL TABLE FOR THE YEAR ENDING SEPTEMBER 30, 1890.

(From Official Sources.)

THE OBSERVATORY, CARLISLE (SPITAL).—HEIGHT OF STATION ABOVE SEA LEVEL 114 FEET.

YEAR 1889-90.	PRESSURE OF ATMOSPHERE IN MONTH.		TEMPERATURE OF AIR IN MONTH.						MEAN TEMPERATURE.		MEAN READING OF THERMOMETER.		RAIN.	
						MEAN								
Month.	Mean.	Range.	Highest.	Lowest.	Range.	of all Highest.	of all Lowest.	Daily Range.	Air.	Dew Point.	Maximum in Rays of Sun.	Minimum on Grass.	Number of days it fell.	Amount Collected.
1889	In.	In.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Days.	In.
October.....	29·517	1·792	61·2	28·8	32·4	54·7	40·1	14·6	47·4	43·4	75·9	37·3	18	3 94
November....	29·978	1·412	56·0	26·2	29·8	49·6	39·6	10·0	44·4	42 5	63·5	35·1	12	1·64
December....	29·928	1·590	53·8	24·5	27·6	44·6	35·9	8·7	40·0	37·7	56·7	29·7	17	2·26
1890														
January.....	29·570	1·594	54·8	30·0	24·8	48·0	40·3	7·7	44·0	41·5	59·5	33·8	24	3·36
February	30·087	1·150	50·8	25·7	25·1	44·9	35·9	9·0	40·3	37·3	61·5	29·4	6	0 62
March	29·587	1·496	66·3	23·8	42·5	51·2	38·4	12·8	45·2	42·3	109·9	32·6	20	2·36
April	29·658	1·022	62·2	28·2	34·0	54·0	38·6	15·4	46·7	43·1	86·4	32·6	12	1·38
May	29·691	0·874	76·2	37·8	38·4	64·4	47·2	17·2	55·6	50·6	104·5	40·8	12	2·72
June	29·766	1·172	73·2	38·6	34·6	65·5	51·4	14·1	57·1	52·1	99·1	45·0	24	4·02
July	29·741	0·814	70·8	43·0	27·8	65·9	52·9	13 0	58·1	52·6	105·6	46·5	19	2·60
August	29·692	1·032	77·2	38·8	38·4	67·5	51·9	15·6	58·0	51·7	103·6	46·1	18	4·30
September....	29·888	1·400	74·8	42·4	32·4	67·6	53·2	14·4	60 4	55·0	91·8	46·7	17	3·36

REMARKS ON THE WEATHER.

October, 1889.—The weather was generally dull and cold, with frequent rain. The temperature of the air was below its average on every day in the month, with the exception of the 7th, 16th, and 30th. The atmospheric pressure was generally below its average throughout the month, and above its average on the 2nd, 6th, 14th, 15th, from the 24th to the 26th, and on the 30th and 31st days. The fall of rain was above its average at all stations.

November.—Weather generally fine, dry and dull. Warm generally from the 3rd to 25th, and cold from the 26th. Temperature of air below its average on first two days, and below on the 27th, 28th, and 29th. Atmospheric pressure below its average for first five days, and generally above to end of month. Fall of rain small, and below average at all stations.

December.—Weather generally cold till 15th, particularly so on the 1st, 2nd, 3rd, 4th, and 12th days, when it was below the average, warm from the 16th to 24th, and cold again till end of month, particularly so on the 29th, being 13° below its average. Atmospheric pressure high, and generally above its average throughout the month. Rainfall a little below average at some stations, and a little above at others. Frequent fogs.

January, 1890.—Weather very cold for first three days, temperature on the 1st being as much as 9·7° below its average; from 4th to end of month remarkably warm, being above its average on the 6th, 7th, 12th to 16th, and 25th days, varying by 13·4° to 10·7°, and on several other days as much as 7° and 8° above. Atmospheric pressure below its average from 18th to 28th, being $\frac{3}{4}$ inch below on the 22nd, and nearly 1·2 inch below on the 23rd; generally above on other days. Rainfall slightly above average at all stations, and the S.W. wind was prevalent.

February.—Warm for first two days, then generally cold, dry, with frequent frost for rest of month. Temperature of air above average on first two days, then below till end of month, except on the 16th, 17th, and 18th days, when it was above the average. Atmospheric pressure above average from 1st to 11th, and from 18th to end of month, being nearly $\frac{3}{4}$ inch above on 23rd. Fall of rain small. Snow fell on several days. Cold E. and N.E. winds prevailed.

March.—Bitterly cold for first five days, temperature of air for these five days being nearly 14° below their average. The temperature on the nights of the 3rd and 4th was as low as 9° at Barnet, varying at other stations to 26° at Bradford and Leeds. The last instance of such low temperature about London was in March, 1845. The weather was then fine and warm from 6th to 17th, being 9·4° above its average on the 11th, from the 18th to 21st slightly below, and from the 22nd to end of month generally above, particularly so on 28th, being 11·7° above its average. Atmospheric pressure below its average from 5th to 26th, above on

other days, and particularly below on the 16th, being ¾ inch below its average. Above average fall of rain at some stations, below at others, and S.W. wind was prevalent.

April.—Weather generally dry, with cold and N.E. winds. The temperature of the air was generally below its average, a few days only exceeding their averages. The atmospheric pressure was above its average during first five days, and generally below during remainder of the month. Fall of rain at a few stations slightly exceeded the average, but below at most stations. Sky generally overcast. The month was very favourable for farming operations.

May.—The weather was variable, but on the whole fine and warm till the 7th day, then cold for two or three days, then warm to 23rd; the 24th and 25th were hot, and from the 26th the weather was cold to end of month. Atmospheric pressure below average till the 20th, and above from the 21st. Rainfall generally above its average. From the 26th to the end of the month very cold winds prevailed. For agricultural pursuits the month was favourable.

June.—Cold and wet weather. Temperature of air was nearly constantly below its average. Atmospheric pressure below its average from 2nd to 6th, and from the 26th, generally above on other days. Fall of rain above the average generally. Few fine days, and the showery weather at the latter part of the month was bad for haymaking.

July.—In this month the weather was cold, dull, and wet. Temperature of air on two or three days was about its average, on all other days below, and at times as much as 11° or 12°. Atmospheric pressure was below average till the 19th, and generally above from the 20th. The fall of rain was above its average at most places. In the counties of Middlesex, Hertfordshire, and Berkshire, on the 17th, the fall was excessive, amounting to three inches, which spoiled much hay. This was generally an unfavourable month for the hay crop.

August.—Weather was cold, sunless, and wet. Temperature of air generally below the average, the 1st and 5th being the only warm days in the month; the second half was very cold, particularly from the 24th to the end. Atmospheric pressure below average from 10th to 29th, from the 23rd to 29th particularly so, and generally above its average till the 9th, and on the 30th and 31st. At all stations the fall of rain was above the average, and the bad weather checked harvest operations most seriously, the corn being damaged by both wind and rain.

September.—Very fine, warm, and dry, with bright sunshine and clear skies. Generally the temperature of the air till the 14th was a little below the average, the 5th and 6th warm, as were the 10th and 11th, but to a less degree; every day from the 15th was warm, and above its average mean temperature. Atmospheric pressure below its average from 16th to 22nd, and above it on every other day. Fall of rain was small, and almost freedom from both fogs or mists at many stations. For gathering in the late harvest the month was very favourable.

THE USE OF OIL ON ROUGH SEAS.

FOR the use of oil on rough seas the following methods will be of great service:—

1. On free waves, that is, waves in deep water, the effect is greatest.

2. In a surf, or waves breaking on a bar, where a mass of liquid is in actual motion in shallow water, the effect of the oil is uncertain, as nothing can prevent the larger waves, under such circumstances, from breaking; but it is of some service even here.

3. The thickest and heaviest oils are most effectual. Kerosene refined is of little use. When nothing else is obtainable, crude petroleum is serviceable; but all vegetable and animal oils, such as waste oil from the engines, have great effect.

4. If applied in such a manner as to spread to windward, a small quantity of oil is sufficient.

5. Both when lying or running to, or in wearing, it is useful in a ship or boat.

6. When hoisting a boat up in a seaway at sea, it is highly probable that much time and injury to the boat would be saved by its application.

7. The oil, in cold water, not being able to spread freely, and being thickened by the lower temperature, will have its effect much reduced, varying according to the description of oil used.

8. Small canvas bags, capable of holding from one to two gallons of oil, hanging over the side in such manner as to be in the water, the bags being punctured with a sail needle, so as to expedite the leakage, appears to be the best method of application in a ship at sea. Circumstances should vary the position of these bags. They should be hung on either bow when running before the wind—for example, from the cathead—and should be allowed to tow in the water. The effect seems to be less with the wind on the quarter than in any other position, the waves coming up on the quarter, while the oil goes astern. The weather bow and another position further aft seem the best positions to hang the bags when lying to, and a sufficient length of line to allow them to draw windward as the ship drifts.

9. Oil poured overboard and allowed to float in ahead of the boat, with a bag towing astern, appears to be the best plan when crossing a bar with a flood tide. The effect, however, cannot be so much trusted. For the purpose of entering on a bar with the ebb tide, it appears to be useless to try oil.

10. It is recommended to pour oil overboard to windward before going alongside for boarding a wreck. In this case the effect must depend upon the set of the current and the circumstances of the depth of water.

11. It is recommended for a boat riding in bad weather from a sea anchor to fasten the bag to an endless line rove through a block on the sea anchor, the oil becoming diffused well ahead of the boat, and, if necessary, the bag can be readily hauled on board for refilling.

THE TIME ALL OVER THE WORLD.

When the clock at Greenwich points to Noon, the time at the various places below is as follows:—

	H.	M.			
Boston, U.S.	7	18	a.m.		
Dublin	11	35	a.m.		
Edinburgh	11	47	a.m.		
Glasgow	11	43	a.m.		
Lisbon	11	43	a.m.		
Madrid	11	45	a.m.		
New York, U.S.	7	14	a.m.		
Penzance	11	38	a.m.		
Philadelphia, U.S.	6	59	a.m.		
Quebec	7	15	a.m.		
Adelaide, Australia	9	11	p.m.		
Amsterdam	12	19	p.m.		
Athens	1	35	p.m.		
Berlin	12	54	p.m.		
Berne	12	30	p.m.		
Bombay	4	52	p.m.		
Brussels	12	17	p.m.		
Calcutta	5	54	p.m.		
Capetown	1	14	p.m.		
Constantinople	1	56	p.m.		
Copenhagen	12	50	p.m.		
Florence	12	45	p.m.		
Jerusalem	2	21	p.m.		
Madras	5	21	p.m.		
Malta	12	58	p.m.		
Melbourne, Australia	9	40	p.m.		
Moscow	2	30	p.m.		
Munich	12	46	p.m.		
Paris	12	9	p.m.		
Pekin	7	46	p.m.		
Prague	12	58	p.m.		
Rome	12	50	p.m.		
Rotterdam	12	18	p.m.		
St. Petersburg	2	1	p.m.		
Suez	2	10	p.m.		
Sydney, Australia	10	5	p.m.		
Stockholm	1	12	p.m.		
Stuttgardt	0	37	p.m.		
Vienna	1	6	p.m.		

Hence, by a little calculation, the time for those places at any hour of our day may be ascertained. At places east of London the apparent time is later, and west of London, earlier; for uniformity sake, however, Greenwich time is kept at all railways in Great Britain and Ireland.

ROYAL NATIONAL LIFEBOAT INSTITUTION.

Lifeboat Services in 1889.

During the year 1889 the Royal National Lifeboat Institution expended *£46,817* in connection with its Lifeboat Establishments on the Coasts of England, Scotland, and Ireland, in addition to having contributed to the saving of *627* persons from various Shipwrecks on our Coasts. The rewards granted by the Committee in recognition of these and other services connected with the Lifeboat cause comprised *3* Silver Medals, *3* Second Service Clasps, *10* Binocular Glasses, *1* Aneroid Barometer, *8* framed Certificates of Service, *25* Votes of Thanks inscribed on Vellum and framed, and *£5,103*, including grants to the relatives of Lifeboatmen who perished while on duty.

The number of lives saved, either by the Lifeboats of the Society or by special exertions for which it has granted rewards, since its formation, is *35,078*; for which services *97* Gold Medals, *1,028* Silver Medals or Silver Clasps, *184* Binocular Glasses, *15* Telescopes, *3* Aneroid Barometers, *9* framed Certificates of Service, *1,272* Votes of Thanks inscribed on Vellum and framed, and *£110,500* have been given as rewards.

The average expense of a Lifeboat Station is *£1,050*, which includes *£700* for the Lifeboat and her equipment, including lifebelts for the crew and transporting carriage for the Lifeboat, and *£350* for the Boathouse (average cost). The approximate annual expense of maintaining a Lifeboat Station is *£70*.

Lives saved by Lifeboats in 1889, in addition to *17* vessels	*420*
During the same period the Institution granted rewards for saving lives by fishing and other boats	*207*
Number saved in 1889	*627*

DAILY TIME TABLES AT LIVERPOOL FOR THE YEAR 1891.

JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.			
Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.	
		Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.
		h m	h m			h m	h m			h m	h m			h m	h m			h m	h m			h m	h m
1	Th	2 48	3 7	1	S	3 28	3 47	1	S	2 20	2 36	1	W	3 5	3 29	1	F	3 51	4 29	1	M	6 23	6 58
2	F	3 27	3 48	2	M	4 9	4 34	2	M	2 53	3 11	2	Th	3 56	4 32	2	S	5 10	5 58	2	Tu	7 31	8 3
3	S	4 11	4 37	3	Tu	5 2	5 37	3	Tu	3 30	3 51	3	F	5 15	6 5	3	S	6 46	7 27	3	W	8 30	8 56
4	S	5 6	5 39	4	W	6 17	7 1	4	W	4 20	4 53	4	S	6 59	7 44	4	M	8 2	8 34	4	Th	9 20	9 44
5	M	6 14	6 51	5	Th	7 42	8 22	5	Th	5 33	6 21	5	S	8 25	8 59	5	Tu	9 0	9 24	5	F	10 7	10 31
6	Tu	7 25	7 56	6	F	8 57	9 29	6	F	7 12	7 58	6	M	9 26	9 50	6	W	9 46	10 8	6	S	10 54	11 17
7	W	8 25	8 52	7	S	9 57	10 23	7	S	8 41	9 16	7	Tu	10 13	10 35	7	Th	10 30	10 52	7	S	11 39	..
8	Th	9 19	9 45	8	S	10 48	11 12	8	S	9 45	10 11	8	W	10 56	11 18	8	F	11 13	11 35	8	M	0 1	0 23
9	F	10 10	10 34	9	M	11 37	..	9	M	10 34	10 58	9	Th	11 39	..	9	S	11 57	..	9	Tu	0 44	1 4
10	S	10 58	11 23	10	Tu	0 2	0 26	10	Tu	11 21	11 43	10	F	0 1	0 22	10	S	0 19	0 40	10	W	1 24	1 43
11	S	11 48	..	11	W	0 50	1 13	11	W	..	0 6	11	S	0 43	1 3	11	M	1 0	1 20	11	Th	2 3	2 24
12	M	0 14	0 39	12	Th	1 35	1 56	12	Th	0 28	0 49	12	S	1 23	1 43	12	Tu	1 40	2 0	12	F	2 45	3 7
13	Tu	1 3	1 27	13	F	2 17	2 38	13	F	1 10	1 30	13	M	2 2	2 22	13	W	2 20	2 41	13	S	3 29	3 53
14	W	1 50	2 14	14	S	2 59	3 20	14	S	1 50	2 9	14	Tu	2 42	3 3	14	Th	3 4	3 29	14	S	4 20	4 49
15	Th	2 38	3 2	15	S	3 41	4 3	15	S	2 28	2 48	15	W	3 25	3 51	15	F	3 58	4 30	15	M	5 19	5 51
16	F	3 26	3 49	16	M	4 27	4 57	16	M	3 7	3 28	16	Th	4 25	5 2	16	S	5 5	5 45	16	Tu	6 26	6 58
17	S	4 14	4 41	17	Tu	5 32	6 14	17	Tu	3 50	4 19	17	F	5 48	6 39	17	S	6 29	7 6	17	W	7 29	7 59
18	S	5 12	5 47	18	W	7 1	7 46	18	W	4 54	5 37	18	S	7 24	8 1	18	M	7 38	8 7	18	Th	8 23	8 46
19	M	6 23	7 0	19	Th	8 27	9 4	19	Th	6 25	7 14	19	S	8 33	9 0	19	Tu	8 33	8 55	19	F	9 8	9 29
20	Tu	7 38	8 15	20	F	9 36	10 2	20	F	8 0	8 41	20	M	9 23	9 42	20	W	9 15	9 33	20	S	9 51	10 12
21	W	8 48	9 18	21	S	10 23	10 42	21	S	9 13	9 38	21	Tu	9 59	10 15	21	Th	9 51	10 9	21	S	10 33	10 55
22	Th	9 46	10 12	22	S	11 0	11 17	22	S	10 1	10 20	22	W	10 31	10 47	22	F	10 26	10 44	22	M	11 16	11 39
23	F	10 35	10 55	23	M	11 35	11 52	23	M	10 37	10 53	23	Th	11 3	11 18	24	S	11 2	11 19	23	Tu	..	0 3
24	S	11 15	11 34	24	Tu	..	0 8	24	Tu	11 9	11 23	24	F	11 33	11 48	24	S	11 38	11 57	24	W	0 27	0 51
25	S	11 52	..	25	W	0 23	0 38	25	W	11 38	11 53	25	S	..	0 6	25	M	..	0 17	25	Th	1 13	1 36
26	M	0 10	0 28	26	Th	0 53	1 7	26	Th	..	0 8	26	S	0 23	0 39	26	Tu	0 37	0 57	26	F	2 0	2 25
27	Tu	0 45	1 2	27	F	1 21	1 36	27	F	0 23	0 38	27	M	0 56	1 13	27	W	1 19	1 40	27	S	2 51	3 17
28	W	1 19	1 34	28	S	1 51	2 5	28	S	0 52	1 7	28	Tu	1 31	1 50	28	Th	2 3	2 27	28	S	3 44	4 12
29	Th	1 49	2 4					29	S	1 22	1 37	29	W	2 11	2 32	29	F	2 53	3 21	29	M	4 42	5 14
30	F	2 19	2 36					30	M	1 53	2 9	30	Th	2 55	3 21	30	S	3 51	4 25	30	Tu	5 48	6 24
31	S	2 53	3 10					31	Tu	2 26	2 44					31	S	5 2	5 42				

Garston tides 7 minutes later than Liverpool each day.

DAILY TIDE TABLES AT LIVERPOOL FOR THE YEAR 1891—*Continued.*

JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER.				DECEMBER.			
Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.		Date.	Day.	LIVERPOOL High Water.	
		Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.
		h m	h m			h m	h m			h m	h m			h m	h m			h m	h m			h m	h m
1	W	6 57	7 29	1	S	8 48	9 20	1	Tu	10 24	10 43	1	Th	10 35	10 51	1	S	11 2	11 17	1	Tu	11 6	11 24
2	Th	8 0	8 31	2	S	9 47	10 12	2	W	11 1	11 18	2	F	11 6	11 21	2	M	11 32	11 49	2	W	11 42	..
3	F	9 0	9 27	3	M	10 35	10 57	3	Th	11 35	11 51	3	S	11 35	11 50	3	Tu	..	0 5	3	Th	0 1	0 20
4	S	9 52	10 16	4	Tu	11 18	11 37	4	F	..	0 6	4	S	..	0 5	4	W	0 21	0 37	4	F	0 40	1 0
5	S	10 41	11 4	5	W	11 56	..	5	S	0 21	0 37	5	M	0 19	0 34	5	Th	0 53	1 10	5	S	1 20	1 41
6	M	11 27	11 49	6	Th	0 15	0 33	6	S	0 52	1 6	6	Tu	0 49	1 8	6	F	1 28	1 47	6	S	2 3	2 27
7	Tu	..	0 10	7	F	0 50	1 7	7	M	1 21	1 35	7	W	1 18	1 32	7	S	2 7	2 29	7	M	2 52	3 18
8	W	0 31	0 50	8	S	1 23	1 38	8	Tu	1 49	2 3	8	Th	1 48	2 5	8	S	2 54	3 21	8	Tu	3 48	4 21
9	Th	1 9	1 28	9	S	1 53	2 8	9	W	2 19	2 35	9	F	2 23	2 43	9	M	3 55	4 35	9	W	4 57	5 35
10	F	1 46	2 4	10	M	2 24	2 40	10	Th	2 52	3 11	10	S	3 4	3 31	10	Tu	5 21	6 8	10	Th	6 16	6 52
11	S	2 22	2 40	11	Tu	2 56	3 13	11	F	3 32	3 58	11	S	4 6	4 47	11	W	6 53	7 29	11	F	7 24	7 55
12	S	2 58	3 17	12	W	3 31	3 50	12	S	4 29	5 7	12	M	5 35	6 29	12	Th	8 3	8 32	12	S	8 23	8 50
13	M	3 37	3 58	13	Th	4 14	4 42	13	S	5 54	6 46	13	Tu	7 16	7 58	13	F	8 56	9 18	13	S	9 16	9 40
14	Tu	4 21	4 46	14	F	5 13	5 52	14	M	7 33	8 14	14	W	8 32	9 0	14	S	9 40	10 2	14	M	10 4	10 29
15	W	5 14	5 45	15	S	6 34	7 15	15	Tu	8 49	9 20	15	Th	9 24	9 46	15	S	10 25	10 47	15	Tu	10 54	11 18
16	Th	6 18	6 52	16	S	7 54	8 31	16	W	9 45	10 8	16	F	10 7	10 28	16	M	11 9	11 32	16	W	11 42	..
17	F	7 27	7 59	17	M	9 5	9 35	17	Th	10 31	10 54	17	S	10 50	11 12	17	Tu	11 55	..	17	Th	0 5	0 27
18	S	8 28	8 57	18	Tu	10 1	10 25	18	F	11 17	11 39	18	S	11 33	11 56	18	W	0 17	0 38	18	F	0 49	1 10
19	S	9 25	9 50	19	W	10 49	11 14	19	S	..	0 2	19	M	..	0 17	19	Th	1 0	1 22	19	S	1 31	1 52
20	M	10 14	10 37	20	Th	11 38	..	20	S	0 23	0 43	20	Tu	0 38	0 57	20	F	1 44	2 5	20	S	2 12	2 32
21	Tu	11 2	11 27	21	F	0 1	0 24	21	M	1 4	1 25	21	W	1 19	1 39	21	S	2 27	2 50	21	M	2 53	3 15
22	W	11 51	..	22	S	0 47	1 10	22	W	1 45	2 6	22	Th	2 0	2 21	22	S	3 15	3 42	22	Tu	3 37	4 0
23	Th	0 16	0 40	23	S	1 32	1 53	23	Th	2 27	2 46	23	F	2 43	3 7	23	M	4 15	4 50	23	W	4 26	4 54
24	F	1 4	1 27	24	M	2 14	2 35	24	F	3 7	3 32	24	S	3 36	4 10	24	Tu	5 28	6 9	24	Th	5 24	5 57
25	S	1 51	2 14	25	Tu	2 55	3 16	25	S	4 1	4 35	25	S	4 50	5 37	25	W	6 48	7 22	25	F	6 32	7 5
26	S	2 38	3 1	26	W	3 38	4 3	26	S	5 17	6 8	26	M	6 27	7 12	26	Th	7 52	8 19	26	S	7 36	8 5
27	M	3 24	3 47	27	Th	4 32	5 5	27	M	7 0	7 45	27	Tu	7 49	8 22	27	F	8 41	9 2	27	S	8 32	8 57
28	Tu	4 12	4 39	28	F	5 44	6 30	28	Tu	8 23	8 55	28	W	8 48	9 10	28	S	9 22	9 39	28	M	9 20	9 42
29	W	5 8	5 42	29	S	7 18	7 59	29	Th	9 22	9 44	29	Th	9 29	9 47	29	S	9 57	10 13	29	Tu	10 3	10 23
30	Th	6 19	6 59	30	S	8 40	9 13	30	W	10 2	10 19	30	F	10 3	10 17	30	M	10 30	10 48	30	W	10 44	11 5
31	F	7 37	8 13	31	M	9 40	10 3					31	S	10 32	10 47					31	Th	11 26	11 46

Garston tides 7 minutes later than Liverpool each day.

DAILY TIME TABLES AT GOOLE FOR THE YEAR 1891.

JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.			
Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.	
		Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.
		h m	h m			h m	h m			h m	h m			h m	h m			h m	h m			h m	h m
1	Th	11 7	11 27	1	S	11 49	..	1	S	10 38	10 55	1	W	11 25	11 53	1	F	..	0 21	1	M	2 13	2 46
2	F	11 50	..	2	M	0 12	0 38	2	M	11 12	11 30	2	Th	..	0 26	2	S	1 2	1 44	2	Tu	3 16	3 46
3	S	0 15	0 41	3	Tu	1 6	1 36	3	Tu	11 52	..	3	F	1 5	1 48	3	S	2 26	3 5	3	W	4 15	4 44
4	S	1 10	1 39	4	W	2 9	2 45	4	W	0 18	0 51	4	S	2 33	3 17	4	M	3 41	4 15	4	Th	5 11	5 35
5	M	2 9	2 40	5	Th	3 21	3 57	5	Th	1 27	2 5	5	S	3 58	4 38	5	Tu	4 48	5 15	5	F	5 59	6 22
6	Tu	3 10	3 40	6	F	4 34	5 10	6	F	2 46	3 29	6	M	5 14	5 41	6	W	5 39	6 1	6	S	6 46	7 10
7	W	4 10	4 39	7	S	5 44	6 12	7	S	4 12	4 54	7	Tu	6 5	6 28	7	Th	6 23	6 45	7	S	7 33	7 56
8	Th	5 7	5 34	8	S	6 38	7 3	8	S	5 31	6 1	8	W	6 50	7 12	8	F	7 8	7 30	8	M	8 18	8 39
9	F	6 0	6 25	9	M	7 27	7 54	9	M	6 26	6 50	9	Th	7 34	7 56	9	S	7 52	8 14	9	Tu	9 0	9 20
10	S	6 49	7 14	10	Tu	8 19	8 44	10	Tu	7 14	7 37	10	F	8 18	8 39	10	S	8 35	8 56	10	W	9 40	10 0
11	S	7 40	8 5	11	W	9 7	9 28	11	W	8 0	8 23	11	S	8 59	9 19	11	M	9 16	9 36	11	Th	10 21	10 42
12	M	8 30	8 54	12	Th	9 50	10 13	12	Th	8 45	9 6	12	S	9 39	9 59	12	Tu	9 56	10 17	12	F	11 4	11 27
13	Tu	9 18	9 42	13	F	10 35	10 56	13	F	9 26	9 46	13	M	10 19	10 39	13	W	10 38	11 0	13	S	11 53	..
14	W	10 7	10 32	14	S	11 17	11 39	14	S	10 6	10 26	14	Tu	10 59	11 22	14	Th	11 25	11 55	14	S	0 21	0 52
15	Th	10 57	11 21	15	S	..	0 2	15	S	10 46	11 6	15	W	11 49	..	15	F	..	0 28	15	M	1 22	1 51
16	F	11 46	..	16	M	0 28	0 58	16	M	11 26	11 49	16	Th	0 21	0 57	16	S	1 2	1 38	16	Tu	2 20	2 49
17	S	0 13	0 42	17	Tu	1 31	2 5	17	Tu	..	0 17	17	F	1 35	2 17	17	S	2 14	2 50	17	W	3 16	3 43
18	S	1 13	1 46	18	W	2 41	3 20	18	W	0 51	1 28	18	S	3 0	3 39	18	M	3 23	3 52	18	Th	4 10	4 36
19	M	2 18	2 50	19	Th	4 0	4 41	19	Th	2 7	2 49	19	S	4 15	4 46	19	Tu	4 20	4 47	19	F	5 1	5 23
20	Tu	3 21	3 53	20	F	5 18	5 51	20	F	3 32	4 14	20	M	5 14	5 38	20	W	5 10	5 30	20	S	5 44	6 6
21	W	4 27	5 2	21	S	6 17	6 39	21	S	4 54	5 27	21	Tu	5 57	6 14	21	Th	5 49	6 7	21	S	6 27	6 49
22	Th	5 33	6 1	22	S	6 58	7 17	22	S	5 53	6 16	22	W	6 31	6 47	22	F	6 24	6 42	22	M	7 11	7 33
23	F	6 27	6 50	23	M	7 35	7 52	23	M	6 35	6 52	23	Th	7 3	7 19	23	S	7 0	7 18	23	Tu	7 56	8 19
24	S	7 11	7 31	24	Tu	8 9	8 24	24	Tu	7 8	7 24	24	F	7 35	7 50	24	S	7 36	7 55	24	W	8 42	9 5
25	S	7 51	8 9	25	W	8 39	8 54	25	W	7 39	7 55	25	S	8 6	8 22	25	M	8 14	8 33	25	Th	9 29	9 53
26	M	8 27	8 45	26	Th	9 9	9 24	26	Th	8 10	8 25	26	S	8 39	8 55	26	Tu	8 53	9 14	26	F	10 17	10 42
27	Tu	9 2	9 18	27	F	9 38	9 52	27	F	8 39	8 54	27	M	9 12	9 29	27	W	9 35	9 57	27	S	11 9	11 37
28	W	9 35	9 50	28	S	10 7	10 22	28	S	9 8	9 23	28	Tu	9 47	10 7	28	Th	10 20	10 45	28	S	..	0 7
29	Th	10 6	10 22					29	S	9 38	9 53	29	W	10 28	10 50	29	F	11 12	11 42	29	M	0 40	1 15
30	F	10 38	10 54					30	M	10 9	10 26	30	Th	11 14	11 44	30	S	..	0 19	30	Tu	1 48	2 19
31	S	11 11	11 29					31	Tu	10 44	11 3					31	S	0 57	1 36				

Hull tides 59 minutes earlier than Goole each day.

DAILY TIDE TABLES AT GOOLE FOR THE YEAR 1891—*Continued.*

JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER.				DECEMBER.			
Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.		Date.	Day.	GOOLE High Water.	
		Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.			Morn.	Aftern.
		h m	h m			h m	h m			h m	h m			h m	h m			h m	h m			h m	h m
1	W	2 48	3 16	1	S	4 26	5 2	1	Tu	6 18	6 39	1	Th	6 34	6 51	1	S	7 3	7 18	1	Tu	7 4	7 23
2	Th	3 44	4 13	2	S	5 35	6 2	2	W	6 59	7 18	2	F	7 7	7 23	2	M	7 33	7 49	2	W	7 41	7 59
3	F	4 44	5 14	3	M	6 27	6 51	3	Th	7 35	7 51	3	S	7 38	7 52	3	Tu	8 5	8 22	3	Th	8 17	8 36
4	S	5 42	6 7	4	Tu	7 13	7 34	4	F	8 7	8 22	4	S	8 7	8 21	4	W	8 38	8 53	4	F	8 55	9 15
5	S	6 31	6 56	5	W	7 54	8 13	5	S	8 38	8 53	5	M	8 35	8 50	5	Th	9 9	9 26	5	S	9 36	9 58
6	M	7 20	7 43	6	Th	8 31	8 49	6	S	9 7	9 22	6	Tu	9 4	9 19	6	F	9 44	10 4	6	S	10 21	10 45
7	Tu	8 5	8 26	7	F	9 6	9 22	7	M	9 37	9 52	7	W	9 34	9 49	7	S	10 25	10 48	7	M	11 11	11 41
8	W	8 47	9 6	8	S	9 38	9 54	8	Tu	10 6	10 21	8	Th	10 6	10 24	8	S	11 15	11 48	8	Tu	..	0 16
9	Th	9 25	9 44	9	S	10 10	10 26	9	W	10 37	10 54	9	F	10 42	11 2	9	M	..	0 27	9	W	0 53	1 31
10	F	10 3	10 22	10	M	10 42	10 58	10	Th	11 12	11 32	10	S	11 27	11 59	10	Tu	1 9	1 51	10	Th	2 6	2 39
11	S	10 40	10 58	11	Tu	11 15	11 33	11	F	11 57	..	11	S	..	0 38	11	W	2 31	3 9	11	F	3 9	3 38
12	S	11 17	11 37	12	W	11 54	..	12	S	0 27	1 3	12	M	1 20	2 4	12	Th	3 43	4 16	12	S	4 7	4 36
13	M	..	0 0	13	Th	0 17	0 44	13	S	1 41	2 22	13	Tu	2 48	3 30	13	F	4 46	5 10	13	S	5 5	5 31
14	Tu	0 25	0 51	14	F	1 14	1 46	14	M	3 5	3 46	14	W	4 11	4 44	14	S	5 13	5 55	14	M	5 55	6 20
15	W	1 19	1 47	15	S	2 21	2 56	15	Tu	4 26	5 3	15	Th	5 15	5 39	15	S	6 17	6 40	15	Tu	6 44	7 10
16	Th	2 15	2 43	16	S	3 31	4 8	16	W	5 35	6 0	16	F	6 1	6 22	16	M	7 3	7 26	16	W	7 35	7 58
17	F	3 11	3 42	17	M	4 45	5 20	17	Th	6 23	6 46	17	S	6 44	7 6	17	Tu	7 49	8 11	17	Th	8 22	8 44
18	S	4 13	4 42	18	Tu	5 50	6 16	18	F	7 10	7 33	18	S	7 29	7 51	18	W	8 33	8 54	18	F	9 5	9 26
19	S	5 11	5 39	19	W	6 41	7 5	19	S	7 56	8 18	19	M	8 13	8 34	19	Th	9 15	9 37	19	S	9 48	10 9
20	M	6 5	6 29	20	Th	7 30	7 55	20	S	8 39	8 59	20	Tu	8 54	9 14	20	F	10 0	10 23	20	S	10 30	10 50
21	Tu	6 53	7 18	21	F	8 18	8 41	21	M	9 20	9 41	21	W	9 35	9 56	21	S	10 46	11 11	21	M	11 11	11 36
22	W	7 43	8 7	22	S	9 3	9 26	22	Tu	10 2	10 24	22	Th	10 17	10 39	22	S	11 40	..	22	Tu	..	0 2
23	Th	8 32	8 56	23	S	9 48	10 9	23	W	10 45	11 6	23	F	11 2	11 31	23	M	0 12	0 48	23	W	0 30	0 59
24	F	9 19	9 43	24	M	10 31	10 52	24	Th	11 28	11 57	24	S	..	0 6	24	Tu	1 23	1 57	24	Th	1 28	1 57
25	S	10 8	10 32	25	Tu	11 13	11 36	25	F	..	0 31	25	S	0 43	1 23	25	W	2 32	3 6	25	F	2 25	2 54
26	S	10 56	11 19	26	W	..	0 1	26	S	1 9	1 49	26	M	2 5	2 46	26	Th	3 36	4 5	26	S	3 22	3 50
27	M	11 43	..	27	Th	0 31	1 4	27	S	2 32	3 17	27	Tu	3 26	4 3	27	F	4 32	4 56	27	S	4 19	4 46
28	Tu	0 10	0 39	28	F	1 39	2 15	28	M	3 59	4 36	28	W	4 35	5 2	28	S	5 17	5 37	28	M	5 11	5 35
29	W	1 10	1 42	29	S	2 52	3 33	29	Tu	5 10	5 37	29	Th	5 25	5 44	29	S	5 55	6 12	29	Tu	5 57	6 18
30	Th	2 13	2 45	30	S	4 14	4 54	30	W	5 59	6 17	30	F	6 2	6 18	30	M	6 28	6 45	30	W	6 38	6 59
31	F	3 17	3 50	31	M	5 28	5 55					31	S	6 33	6 48					31	Th	7 21	7 42

Hull tides 59 minutes earlier than Goole each day.

TABLE

SHOWING *the* NUMBER *of* DAYS *between any two* DATES; *also showing the* NUMBER *of* DAYS *from any* DAY *throughout the* YEAR *to the* 31ST *of* DECEMBER, *the usual period to which Interest is Calculated.*

JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.		
Jan.	Number.	Days to Dec. 31.	Feb.	Number.	Days to Dec. 31.	Mar.	Number.	Days to Dec. 31.	April	Number.	Days to Dec. 31.	May.	Number.	Days to Dec. 31.	June	Number.	Days to Dec. 31.
1	1	364	1	32	333	1	60	305	1	91	274	1	121	244	1	152	213
2	2	363	2	33	332	2	61	304	2	92	273	2	122	243	2	153	212
3	3	362	3	34	331	3	62	303	3	93	272	3	123	242	3	154	211
4	4	361	4	35	330	4	63	302	4	94	271	4	124	241	4	155	210
5	5	360	5	36	329	5	64	301	5	95	270	5	125	240	5	156	209
6	6	359	6	37	328	6	65	300	6	96	269	6	126	239	6	157	208
7	7	358	7	38	327	7	66	299	7	97	268	7	127	238	7	158	207
8	8	357	8	39	326	8	67	298	8	98	267	8	128	237	8	159	206
9	9	356	9	40	325	9	68	297	9	99	266	9	129	236	9	160	205
10	10	355	10	41	324	10	69	296	10	100	265	10	130	235	10	161	204
11	11	354	11	42	323	11	70	295	11	101	264	11	131	234	11	162	203
12	12	353	12	43	322	12	71	294	12	102	263	12	132	233	12	163	202
13	13	352	13	44	321	13	72	293	13	103	262	13	133	232	13	164	201
14	14	351	14	45	320	14	73	292	14	104	261	14	134	231	14	165	200
15	15	350	15	46	319	15	74	291	15	105	260	15	135	230	15	166	199
16	16	349	16	47	318	16	75	290	16	106	259	16	136	229	16	167	198
17	17	348	17	48	317	17	76	289	17	107	258	17	137	228	17	168	197
18	18	347	18	49	316	18	77	288	18	108	257	18	138	227	18	169	196
19	19	346	19	50	315	19	78	287	19	109	256	19	139	226	19	170	195
20	20	345	20	51	314	20	79	286	20	110	255	20	140	225	20	171	194
21	21	344	21	52	313	21	80	285	21	111	254	21	141	224	21	172	193
22	22	343	22	53	312	22	81	284	22	112	253	22	142	223	22	173	192
23	23	342	23	54	311	23	82	283	23	113	252	23	143	222	23	174	191
24	24	341	24	55	310	24	83	282	24	114	251	24	144	221	24	175	190
25	25	340	25	56	309	25	84	281	25	115	250	25	145	220	25	176	189
26	26	339	26	57	308	26	85	280	26	116	249	26	146	219	26	177	188
27	27	338	27	58	307	27	86	279	27	117	248	27	147	218	27	178	187
28	28	337	28	59	306	28	87	278	28	118	247	28	148	217	28	179	186
29	29	336				29	88	277	29	119	246	29	149	216	29	180	185
30	30	335				30	89	276	30	120	245	30	150	215	30	181	184
31	31	334				31	90	275				31	151	214			

TABLE

SHOWING *the* NUMBER *of* DAYS *between any two* DATES, *&c.*—CONTINUED.

JULY.			AUGUST.			SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.		
July.	Number.	Days to Dec. 31.	Aug.	Number.	Days to Dec. 31.	Sept.	Number.	Days to Dec. 31.	Oct.	Number.	Days to Dec. 31.	Nov.	Number.	Days to Dec. 31.	Dec.	Number.	Days to Dec. 31
1	182	183	1	213	152	1	244	121	1	274	91	1	305	60	1	335	30
2	183	182	2	214	151	2	245	120	2	275	90	2	306	59	2	336	29
3	184	181	3	215	150	3	246	119	3	276	89	3	307	58	3	337	28
4	185	180	4	216	149	4	247	118	4	277	88	4	308	57	4	338	27
5	186	179	5	217	148	5	248	117	5	278	87	5	309	56	5	339	26
6	187	178	6	218	147	6	249	116	6	279	86	6	310	55	6	340	25
7	188	177	7	219	146	7	250	115	7	280	85	7	311	54	7	341	24
8	189	176	8	220	145	8	251	114	8	281	84	8	312	53	8	342	23
9	190	175	9	221	144	9	252	113	9	282	83	9	313	52	9	343	22
10	191	174	10	222	143	10	253	112	10	283	82	10	314	51	10	344	21
11	192	173	11	223	142	11	254	111	11	284	81	11	315	50	11	345	20
12	193	172	12	224	141	12	255	110	12	285	80	12	316	49	12	346	19
13	194	171	13	225	140	13	256	109	13	286	79	13	317	48	13	347	18
14	195	170	14	226	139	14	257	108	14	287	78	14	318	47	14	348	17
15	196	169	15	227	138	15	258	107	15	288	77	15	319	46	15	349	16
16	197	168	16	228	137	16	259	106	16	289	76	16	320	45	16	350	15
17	198	167	17	229	136	17	260	105	17	290	75	17	321	44	17	351	14
18	199	166	18	230	135	18	261	104	18	291	74	18	322	43	18	352	13
19	200	165	19	231	134	19	262	103	19	292	73	19	323	42	19	353	12
20	201	164	20	232	133	20	263	102	20	293	72	20	324	41	20	354	11
21	202	163	21	233	132	21	264	101	21	294	71	21	325	40	21	355	10
22	203	162	22	234	131	22	265	100	22	295	70	22	326	39	22	356	9
23	204	161	23	235	130	23	266	99	23	296	69	23	327	38	23	357	8
24	205	160	24	236	129	24	267	98	24	297	68	24	328	37	24	358	7
25	206	159	25	237	128	25	268	97	25	298	67	25	329	36	25	359	6
26	207	158	26	238	127	26	269	96	26	299	66	26	330	35	26	360	5
27	208	157	27	239	126	27	270	95	27	300	65	27	331	34	27	361	4
28	209	156	28	240	125	28	271	94	28	301	64	28	332	33	28	362	3
29	210	155	29	241	124	29	272	93	29	302	63	29	333	32	29	363	2
30	211	154	30	242	123	30	273	92	30	303	62	30	334	31	30	364	1
31	212	153	31	243	122				31	304	61				31	365	

TABLE SHOWING THE NUMBER OF DAYS FROM ANY DAY OF ONE MONTH TO THE SAME DAY OF ANY OTHER MONTH.

NUMBER OF DAYS FROM DAY TO DAY.

FROM TO	JAN.	FEB.	MAR.	APRIL	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.
JANUARY ..	365	31	59	90	120	151	181	212	243	273	304	334
FEBRUARY..	334	365	28	59	89	120	150	181	212	242	273	303
MARCH....	306	337	365	31	61	92	122	153	184	214	245	275
APRIL	275	306	334	365	30	61	91	122	153	183	214	244
MAY.....	245	276	304	335	365	31	61	92	123	153	184	214
JUNE.....	214	245	273	304	334	365	30	61	92	122	153	183
JULY.....	184	215	243	274	304	335	365	31	62	92	123	153
AUGUST....	153	184	212	243	273	304	334	365	31	61	92	122
SEPTEMBER	122	153	181	212	242	273	303	334	365	30	61	91
OCTOBER ..	92	123	151	182	212	243	273	304	335	365	31	61
NOVEMBER..	61	92	120	151	181	212	242	273	304	334	365	30
DECEMBER.	31	62	90	121	151	182	212	243	274	304	335	365

Example of Use of Table:—To find the number of days *from* 16th August to 27th February. Find August in the side column and February at the top; the number at the intersection, viz., 184, is the number of days from 16th August to 16th February; add 11 (the difference between 16 and 27), and the sum 195 is the number required. Similarly, the number from 16th August to 5th February is 184 less 11, or 173.

A CALENDAR

For Ascertaining Any Day of the Week for any Given Time within the Present Century.

Years 1801 to 1900.

											31 Jan.	28 Feb.	31 Mar.	30 April	31 May.	30 June	31 July.	31 Aug.	30 Sept.	31 Oct.	30 Nov.	31 Dec.
1801	1807	1818	1829	1835	1846	1857	1863	1874	1885	1891	4	7	7	3	5	1	3	6	2	4	7	2
1802	1813	1819	1830	1841	1847	1858	1869	1875	1886	1897	5	1	1	4	6	2	4	7	3	5	1	3
1803	1814	1825	1831	1842	1853	1859	1870	1881	1887	1898	6	2	2	5	7	3	5	1	4	6	2	4
1805	1811	1822	1833	1839	1850	1861	1867	1878	1889	1895	2	5	5	1	3	6	1	4	7	2	5	7
1806	1817	1823	1834	1845	1851	1862	1873	1879	1890	..	3	6	6	2	4	7	2	5	1	3	6	1
1809	1815	1826	1837	1843	1854	1865	1871	1882	1893	1899	7	3	3	6	1	4	6	2	5	7	3	5
1810	1821	1827	1838	1849	1855	1866	1877	1883	1894	1900	1	4	4	7	2	5	7	3	6	1	4	6

Note.—To ascertain any day of the week in any year of the present century, first look in the table of years for the year required, and under the months are figures which refer to the corresponding figures at the head of the columns of days below. *For example:* To know what day of the week May 4 was on in the year 1876, in the table of years look for 1876, and in a parallel line, under May, is figure 1, which directs to column 1, in which it will be seen that May 4 fell on Thursday.

LEAP YEARS.																						
				..	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1804	1832	1860	1888	7	3	4	7	2	5	7	3	6	1	4	6							
1808	1836	1864	1892	5	1	2	5	7	3	5	1	4	6	2	4							
1812	1840	1868	1896	3	6	7	3	5	1	3	6	2	4	7	2							
1816	1844	1872	..	1	4	5	1	3	6	1	4	7	2	5	7							
1820	1848	1876	..	6	2	3	6	1	4	6	2	5	7	3	5							
1824	1852	1880	..	4	7	1	4	6	2	4	7	3	5	1	3							
1828	1856	1884	..	2	5	6	2	4	7	2	5	1	3	6	1							

1	2	3	4	5	6	7
Monday 1	Tuesday 1	Wednesday 1	Thursday 1	Friday 1	Saturday 1	Sunday 1
Tuesday 2	Wednesday 2	Thursday 2	Friday 2	Saturday 2	Sunday 2	Monday 2
Wednesday 3	Thursday 3	Friday 3	Saturday 3	Sunday 3	Monday 3	Tuesday 3
Thursday 4	Friday 4	Saturday 4	Sunday 4	Monday 4	Tuesday 4	Wednesday 4
Friday 5	Saturday 5	Sunday 5	Monday 5	Tuesday 5	Wednesday 5	Thursday 5
Saturday 6	Sunday 6	Monday 6	Tuesday 6	Wednesday 6	Thursday 6	Friday 6
Sunday 7	Monday 7	Tuesday 7	Wednesday 7	Thursday 7	Friday 7	Saturday 7
Monday 8	Tuesday 8	Wednesday 8	Thursday 8	Friday 8	Saturday 8	Sunday 8
Tuesday 9	Wednesday 9	Thursday 9	Friday 9	Saturday 9	Sunday 9	Monday 9
Wednes. 10	Thursday 10	Friday 10	Saturday 10	Sunday 10	Monday 10	Tuesday 10
Thursday 11	Friday 11	Saturday 11	Sunday 11	Monday 11	Tuesday 11	Wednes. 11
Friday 12	Saturday 12	Sunday 12	Monday 12	Tuesday 12	Wednes. 12	Thursday 12
Saturday 13	Sunday 13	Monday 13	Tuesday 13	Wednes. 13	Thursday 13	Friday 13
Sunday 14	Monday 14	Tuesday 14	Wednes. 14	Thursday 14	Friday 14	Saturday 14
Monday 15	Tuesday 15	Wednes. 15	Thursday 15	Friday 15	Saturday 15	Sunday 15
Tuesday 16	Wednes. 16	Thursday 16	Friday 16	Saturday 16	Sunday 16	Monday 16
Wednes. 17	Thursday 17	Friday 17	Saturday 17	Sunday 17	Monday 17	Tuesday 17
Thursday 18	Friday 18	Saturday 18	Sunday 18	Monday 18	Tuesday 18	Wednes. 18
Friday 19	Saturday 19	Sunday 19	Monday 19	Tuesday 19	Wednes. 19	Thursday 19
Saturday 20	Sunday 20	Monday 20	Tuesday 20	Wednes. 20	Thursday 20	Friday 20
Sunday 21	Monday 21	Tuesday 21	Wednes. 21	Thursday 21	Friday 21	Saturday 21
Monday 22	Tuesday 22	Wednes. 22	Thursday 22	Friday 22	Saturday 22	Sunday 22
Tuesday 23	Wednes. 23	Thursday 23	Friday 23	Saturday 23	Sunday 23	Monday 23
Wednes. 24	Thursday 24	Friday 24	Saturday 24	Sunday 24	Monday 24	Tuesday 24
Thursday 25	Friday 25	Saturday 25	Sunday 25	Monday 25	Tuesday 25	Wednes. 25
Friday 26	Saturday 26	Sunday 26	Monday 26	Tuesday 26	Wednes. 26	Thursday 26
Saturday 27	Sunday 27	Monday 27	Tuesday 27	Wednes. 27	Thursday 27	Friday 27
Sunday 28	Monday 28	Tuesday 28	Wednes. 28	Thursday 28	Friday 28	Saturday 28
Monday 29	Tuesday 29	Wednes. 29	Thursday 29	Friday 29	Saturday 29	Sunday 29
Tuesday 30	Wednes. 30	Thursday 30	Friday 30	Saturday 30	Sunday 30	Monday 30
Wednes. 31	Thursday 31	Friday 31	Saturday 31	Sunday 31	Monday 31	Tuesday 31

A READY RECKONER.

No.	¼d.	½d.	¾d.	1d.	2d.	3d.	4d.	5d.	6d.	7d.	8d.	9d.	10d.	11d.	No.
1	0 0¼	0 0½	0 0¾	0 1	0 2	0 3	0 4	0 5	0 6	0 7	0 8	0 9	0 10	0 11	1
2	0 0½	0 1	0 1½	0 2	0 4	0 6	0 8	0 10	1 0	1 2	1 4	1 6	1 8	1 10	2
3	0 0¾	0 1½	0 2¼	0 3	0 6	0 9	1 0	1 3	1 6	1 9	2 0	2 3	2 6	2 9	3
4	0 1	0 2	0 3	0 4	0 8	1 0	1 4	1 8	2 0	2 4	2 8	3 0	3 4	3 8	4
5	0 1¼	0 2½	0 3¾	0 5	0 10	1 3	1 8	2 1	2 6	2 11	3 4	3 9	4 2	4 7	5
6	0 1½	0 3	0 4½	0 6	1 0	1 6	2 0	2 6	3 0	3 6	4 0	4 6	5 0	5 6	6
7	0 1¾	0 3½	0 5¼	0 7	1 2	1 9	2 4	2 11	3 6	4 1	4 8	5 3	5 10	6 5	7
8	0 2	0 4	0 6	0 8	1 4	2 0	2 8	3 4	4 0	4 8	5 4	6 0	6 8	7 4	8
9	0 2¼	0 4½	0 6¾	0 9	1 6	2 3	3 0	3 9	4 6	5 3	6 0	6 9	7 6	8 3	9
10	0 2½	0 5	0 7½	0 10	1 8	2 6	3 4	4 2	5 0	5 10	6 8	7 6	8 4	9 2	10
11	0 2¾	0 5½	0 8¼	0 11	1 10	2 9	3 8	4 7	5 6	6 5	7 4	8 3	9 2	10 1	11
12	0 3	0 6	0 9	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12
13	0 3¼	0 6½	0 9¾	1 1	2 2	3 3	4 4	5 5	6 6	7 7	8 8	9 9	10 10	11 11	13
14	0 3½	0 7	0 10½	1 2	2 4	3 6	4 8	5 10	7 0	8 2	9 4	10 6	11 8	12 10	14
15	0 3¾	0 7½	0 11¼	1 3	2 6	3 9	5 0	6 3	7 6	8 9	10 0	11 3	12 6	13 9	15
16	0 4	0 8	1 0	1 4	2 8	4 0	5 4	6 8	8 0	9 4	10 8	12 0	13 4	14 8	16
17	0 4¼	0 8½	1 0¾	1 5	2 10	4 3	5 8	7 1	8 6	9 11	11 4	12 9	14 2	15 7	17
18	0 4½	0 9	1 1½	1 6	3 0	4 6	6 0	7 6	9 0	10 6	12 0	13 6	15 0	16 6	18
19	0 4¾	0 9½	1 2¼	1 7	3 2	4 9	6 4	7 11	9 6	11 1	12 8	14 3	15 10	17 5	19
20	0 5	0 10	1 3	1 8	3 4	5 0	6 8	8 4	10 0	11 8	13 4	15 0	16 8	18 4	20
21	0 5¼	0 10½	1 3¾	1 9	3 6	5 3	7 0	8 9	10 6	12 3	14 0	15 9	17 6	19 3	21
22	0 5½	0 11	1 4½	1 10	3 8	5 6	7 4	9 2	11 0	12 10	14 8	16 6	18 4	20 2	22
23	0 5¾	0 11½	1 5¼	1 11	3 10	5 9	7 8	9 7	11 6	13 5	15 4	17 3	19 2	21 1	23
24	0 6	1 0	1 6	2 0	4 0	6 0	8 0	10 0	12 0	14 0	16 0	18 0	20 0	22 0	24
25	0 6¼	1 0½	1 6¾	2 1	4 2	6 3	8 4	10 5	12 6	14 7	16 8	18 9	20 10	22 11	25
26	0 6½	1 1	1 7½	2 2	4 4	6 6	8 8	10 10	13 0	15 2	17 4	19 6	21 8	23 10	26
27	0 6¾	1 1½	1 8¼	2 3	4 6	6 9	9 0	11 3	13 6	15 9	18 0	20 3	22 6	24 9	27
28	0 7	1 2	1 9	2 4	4 8	7 0	9 4	11 8	14 0	16 4	18 8	21 0	23 4	25 8	28
29	0 7¼	1 2½	1 9¾	2 5	4 10	7 3	9 8	12 1	14 6	16 11	19 4	21 9	24 2	26 7	29
30	0 7½	1 3	1 10½	2 6	5 0	7 6	10 0	12 6	15 0	17 6	20 0	22 6	25 0	27 6	30
33	0 8¼	1 4½	2 0¾	2 9	5 6	8 3	11 0	13 9	16 6	19 3	22 0	24 9	27 6	30 3	33
36	0 9	1 6	2 3	3 0	6 0	9 0	12 0	15 0	18 0	21 0	24 0	27 0	30 0	33 0	36
40	0 10	1 8	2 6	3 4	6 8	10 0	13 4	16 8	20 0	23 4	26 8	30 0	33 4	36 8	40
42	0 10½	1 9	2 7½	3 6	7 0	10 6	14 0	17 6	21 0	24 6	28 0	31 6	35 0	38 6	42
45	0 11¼	1 10½	2 9¾	3 9	7 6	11 3	15 0	18 9	22 6	26 3	30 0	33 9	37 6	41 3	45
48	1 0	2 0	3 0	4 0	8 0	12 0	16 0	20 0	24 0	28 0	32 0	36 0	40 0	44 0	48
50	1 0½	2 1	3 1½	4 2	8 4	12 6	16 8	20 10	25 0	29 2	33 4	37 6	41 8	45 10	50
51	1 0¾	2 1½	3 2¼	4 3	8 6	12 9	17 0	21 3	25 6	29 9	34 0	38 3	42 6	46 9	51
52	1 1	2 2	3 3	4 4	8 8	13 0	17 4	21 8	26 0	30 4	34 8	39 0	43 4	47 8	52
53	1 1¼	2 2½	3 3¾	4 5	8 10	13 3	17 8	22 1	26 6	30 11	35 4	39 9	44 2	48 7	53
54	1 1½	2 3	3 4½	4 6	9 0	13 6	18 0	22 6	27 0	31 6	36 0	40 6	45 0	49 6	54
56	1 2	2 4	3 6	4 8	9 4	14 0	18 8	23 4	28 0	32 8	37 4	42 0	46 8	51 4	56
60	1 3	2 6	3 9	5 0	10 0	15 0	20 0	25 0	30 0	35 0	40 0	45 0	50 0	55 0	60

WAGES TABLE.

Per Year.	Per Month.	Per Week.	Per Day.	Per Year.	Per Month.	Per Week.	Per Day.	Per Year.	Per Month.	Per Week.	Per Day.
£ s.	s. d.	s. d.	s. d.	£ s.	£ s. d.	s. d.	s. d.	£ s.	£ s. d.	£ s. d.	£ s. d.
0 10	0 10	0 2¼	0 0¼	8 0	0 13 4	3 1	0 5¼	18 0	1 10 0	0 6 11	0 0 11¾
1 0	1 8	0 4½	0 0¾	8 8	0 14 0	3 2¾	0 5½	18 18	1 11 6	0 7 3¼	0 1 0½
1 10	2 6	0 7	0 1	8 10	0 14 2	3 3¼	0 5½	19 0	1 11 8	0 7 3¾	0 1 0½
2 0	3 4	0 9¼	0 1¼	9 0	0 15 0	3 5½	0 6	20 0	1 13 4	0 7 8¼	0 1 1¼
2 2	3 6	0 9¾	0 1½	9 9	0 15 9	3 7½	0 6¼	30 0	2 10 0	0 11 6½	0 1 7¾
2 10	4 2	0 11½	0 1¾	10 0	0 16 8	3 10¼	0 6½	40 0	3 6 8	0 15 4½	0 2 2¼
3 0	5 0	1 1¾	0 2	10 10	0 17 6	4 0½	0 7	50 0	4 3 4	0 19 2¾	0 2 9
3 3	5 3	1 2½	0 2	11 0	0 18 4	4 3¾	0 7¼	60 0	5 0 0	1 3 1	0 3 3½
3 10	5 10	1 4¼	0 2¼	11 11	0 19 3	4 5¼	0 7½	70 0	5 16 8	1 6 11	0 3 10
4 0	6 8	1 6½	0 2¾	12 0	1 0 0	4 7½	0 8	80 0	6 13 4	1 10 9¼	0 4 4½
4 4	7 0	1 7½	0 2¾	12 12	1 1 0	4 10¼	0 8¼	90 0	7 10 0	1 14 7½	0 4 11¼
4 10	7 6	1 8¾	0 3	13 0	1 1 8	5 0	0 8½	100 0	8 6 8	1 18 5½	0 5 5¾
5 0	8 4	1 11	0 3¼	13 13	1 2 9	5 3	0 9	200 0	16 13 4	3 16 11	0 10 11½
5 5	8 9	2 0¼	0 3½	14 0	1 3 4	5 4½	0 9¼	300 0	25 0 0	5 15 4½	0 16 5¼
5 10	9 2	2 1½	0 3¾	14 14	1 4 6	5 7¾	0 9¾	400 0	33 6 8	7 13 10¼	1 1 11
6 0	10 0	2 3¾	0 4	15 0	1 5 0	5 9¼	0 9¾	500 0	41 13 4	9 12 3¾	1 7 4¾
6 6	10 6	2 5	0 4¼	15 15	1 6 3	6 0¾	0 10¼	600 0	50 0 0	11 10 9¼	1 12 10½
6 10	10 10	2 6	0 4¼	16 0	1 6 8	6 1¾	0 10½	700 0	58 6 8	13 9 2¾	1 18 4¼
7 0	11 8	2 8¼	0 4½	16 16	1 8 0	6 5½	0 11	800 0	66 13 4	15 7 8¼	2 3 10
7 7	12 3	2 10	0 4¾	17 0	1 8 4	6 6½	0 11¼	900 0	75 0 0	17 6 1¾	2 9 3¼
7 10	12 6	2 10½	0 5	17 17	1 9 9	6 10½	0 11¾	1000 0	83 6 8	19 4 7¼	2 14 9½

WEIGHTS AND MEASURES.

Troy Weight.

		Pennywts.		Grains.	*gr.*
	Ounces.	1	=	24	*dwt.*
Pound.	1 =	20	=	480	oz.
1 =	12 =	240	=	5760	lb.

A carat = 4 grains. 100 Troy ounces = 190$\frac{5}{7}$ Ounces Avoirdupois.

Avoirdupois Weight.

						dr.Ty.gr.
				oz.		1=27$\frac{11}{32}$
			lb.	1=		16=437$\frac{1}{2}$
		st.	1=	16=		256=7000
	qr.	1=	14=	224=	3584	
	cwt. 1=	2=	28=	448=	7168	
Ton.	1=	4=	8=	112=	1792=	28672

1 = 20=80=160=2240=35840=573440

Ton. cwt. qr. st. lb. oz. dr. gr.

A Cental = 100 pounds. 100 Ounces Avoirdupois = 91$\frac{7}{48}$ Ounces Troy.

The Apothecaries' is now the same as the Avoirdupois.

Lineal Measure, or Measure of Length.

						ft.	in.
					yds.	1 =	12
				pl.	1 =	3 =	36
			ch.	1 =	5$\frac{1}{2}$=	16$\frac{1}{2}$=	198
		fur.	1 =	4 =	22 =	66 =	792
Mile.	1 =	10 =	40 =	220 =	660 =	7920	
1 =	8 =	80 =	320 =	1760 =	5280 =	63360	

A league = 3 miles. A hand = 4 inches. A fathom = 6 feet.

Geographical degree = 60 geographical or nautical miles = 69·121 imper. miles.

Geographical mile = 1·150 imperial miles. A military pace = 2$\frac{1}{2}$ feet.

Solid or Cubic Measure.

	Cubic feet.		Cubic inches.
Cubic yard.	1	=	1728
1 =	27	=	46656

1 Ton of Shipping = 40 cubic feet.
1 Barrel Bulk = 5 cubic feet.

Liquid Measure of Capacity.

			Pints.		Gills.
	Quarts.		1	=	4
Gallon.	1	=	2	=	8
1 =	4	=	8	=	32

A hogshead (hhd.) contains 63 gallons. A pipe is 2 hogsheads, and 2 pipes form a tun. All liquids are measured by this table.

Grain Measure, &c., or Dry Measure of Capacity.

			Pecks.		Gallons.
	Bushels.		1	=	2
Quarter.	1	=	4	=	8
1 =	8	=	32	=	64

1 Boll of Wheat = 4 bushels nearly.
1 Boll of Barley = 6 „ „
5 Bushels are a sack.
5 Quarters make a load.

Square or Land Measure.

				Sq.feet.	Sq.in.
			Sq.yards.	1 =	144
		Sq.poles.	1 =	9 =	1296
	Sq.roods.	1 =	30$\frac{1}{4}$=	272$\frac{1}{4}$=	39204
Sq.acre.	1 =	40 =	1210 =	10890 =	1568160
1 =	4 =	160 =	4840 =	43560 =	6272640

1 square mile=640 acres: 36 square yards=1 rood of building: 100 sq. feet = 1 square of flooring: 272$\frac{1}{4}$ sq. feet = 1 rood of bricklayer's work. The chain with which land is measured is 22 yards long, and 1 sq. chain = 10,000 sq. links, contains 22×22 = 484 sq. yards: 10 sq. chains = 1 acre.

Table of Time.

			Minutes.		Seconds.
		Hours.	1	=	60
	Days.	1 =	60	=	3600
Week.	1 =	24 =	1440	=	86400
1 =	7 =	168 =	10080	=	604800

1 Common Year = 365 days, or 52 weeks 1 day.
1 Leap Year = 366 days, or 52 weeks 2 days.
1 Solar Year = 365 days 5 hours 48 minutes 49 seconds.

Geographical or Nautical Measure.

1 Geographical mile = { 1$\frac{3}{10}$ imperial mile of 6,076 feet.
3 „ miles .. = 1 league.
60 „ miles .. = { 1 degree, marked *deg.* or [°].
360 „ degs. or about 24,855$\frac{1}{2}$ imp. miles = { Circumference of the earth.

Bread Weight.

	lb.	oz.
A Peck Loaf weighs	17	6$\frac{1}{2}$
A Half Peck Loaf	8	11
A Quartern Loaf	4	5
A Peck or Stone of Flour	14	0
A Bushel of Flour	56	6
A Sack of Flour, or 5 Bushels	280	0

Useful Weights.

The following Table will be found useful when it is desired to ascertain the weight of a letter or other article, and suitable weights are not at hand. The weight given is that of coins fairly worn; allowance must be made if those used be new or very old.

$\frac{1}{2}$ oz.....Halfpenny and threepenny piece.
$\frac{1}{2}$ „ ....One penny piece.
$\frac{1}{2}$ „ ....Florin and sixpence.
1 „ ....Three pennies.
2 „ ....4 half-crowns and one shilling.
4 „ ....4 florins, 4 half-crowns, 2$\frac{1}{2}$ pennies.

Books.

	Pages.	Leaves.	Sheets.
Folio Books	4	or 2	make 1
Quarto, or 4to	8	„ 4	„ 1
Octavo, 8vo.....	16	„ 8	„ 1
Duodecimo, or 12mo ..	24	„ 12	„ 1
Octodecimo, or 18mo ..	36	„ 18	„ 1

24mo, 32mo, 48mo, 72mo, &c., &c.

TERMS AND ABBREVIATIONS COMMONLY USED IN BUSINESS.

A/c .....Account.
C .....Currency.
$ .....A dollar.
E. E. .....Errors excepted.
E. & O. E.....Errors and omissions excepted.
F. O. B.....Free on board (delivered on deck without expense to the ship).
F. P. A. .....Free of particular average.
INST.....Present month.
PROX.....Next month.
ULT.....Last month.
D/D .....Days after date.
M/D.....Months after date.
D/S.....Days after sight.
%.....Per cent.
@ ℔ lb .....At per pound.
B/L.....Bill of lading.
AD VALOREM ..According to value.
AFFIDAVIT ....Statement on oath.
AFFIRMATION..Statement without an oath.
AGIO .....The premium borne by a better sort of money above an inferior.
ASSETS .....A term for property in contradistinction to liabilities.
BANCO .....A continental term for bank money at Hamburg and other places.

DEAD FREIGHT.—The damage payable by one who engages to load a ship fully, and fails to do so.

DEVIATION, in marine insurance, is that divergence from the voyage insured which releases the underwriter from his risk.

DISCOUNT.—An allowance made for payment of money before due.

POLICY.—The document containing the contract of insurance. A *Valued Policy* is when the interest insured is valued. An *Open Policy* is one in which the amount is left for subsequent proof. In an open policy where the value shipped does not equal the value insured, the difference is termed *over insurance;* and the proportionable amount of premium returnable to the insurer is called a *return for short interest.*

PRIMAGE.—A small allowance for the shipmaster's care of goods, now generally included in the freight.

PRO RATA.—Payment in proportion to the various interests concerned.

QUID PRO QUO.—Giving one thing for another.

RESPONDENTIA.—A contract of loan by which goods in a ship are hypothecated to the lender, as in bottomry.

ULLAGE.—The quantity a cask wants of being full.

PRINCIPAL ARTICLES OF THE CALENDAR,

FOR THE YEAR 1891.

Golden Number	xi	Dominical Letter	D
Epact	20	Roman Indiction	4
Solar Cycle	24	Julian Period	6604

FIXED AND MOVABLE FESTIVALS, ANNIVERSARIES, ETC.

Epiphany	Jan. 6	Ascension Day	May 7
Septuagesima Sunday	,, 25	Pentecost—Whit Sunday	,, 17
Sexagesima Sunday	Feb. 1	Birth of Queen Victoria (1819)	,, 24
Quinquagesima Sunday	,, 8	Trinity Sunday	,, 24
Ash Wednesday	,, 11	Corpus Christi	,, 28
Quadragesima—1st Sun. in Lent	,, 15	Accession of Queen Victoria (1837)	June 20
St. David	Mar. 1	Proclamation	,, 23
St. Patrick	,, 17	St. John Baptist—Midsum. Day	,, 24
Palm Sunday	,, 22	St. Michael—Michaelmas Day	Sept. 29
Lady Day	,, 25	Birth of Prince of Wales (1841)	Nov. 9
Good Friday	,, 27	Advent Sunday	,, 29
Easter Sunday	,, 29	St. Andrew	,, 30
Low Sunday	April 5	St. Thomas	Dec. 21
St. George	,, 23	Christmas Day (Friday)	,, 25
Rogation Sunday	May 3		

The Year 5652 of the Jewish Era commences on October 3rd, 1891.

Ramadân (Month of Abstinence observed by the Turks) commences on April 10th, 1891.

The Year 1309 of the Mohammedan Era commences on August 7th, 1891.

Calendar for 1891.

January.

S	..	4	11	18	25
M	..	5	12	19	26
Tu	..	6	13	20	27
W	..	7	14	21	28
Th	1	8	15	22	29
F	2	9	16	23	30
S	3	10	17	24	31

February.

S	1	8	15	22
M	2	9	16	23
Tu	3	10	17	24
W	4	11	18	25
Th	5	12	19	26
F	6	13	20	27
S	7	14	21	28

March.

S	1	8	15	22	29
M	2	9	16	23	30
Tu	3	10	17	24	31
W	4	11	18	25	..
Th	5	12	19	26	..
F	6	13	20	27	..
S	7	14	21	28	..

April.

S	..	5	12	19	26
M	..	6	13	20	27
Tu	..	7	14	21	28
W	1	8	15	22	29
Th	2	9	16	23	30
F	3	10	17	24	..
S	4	11	18	25	..

May.

S	..	3	10	17	24	31
M	..	4	11	18	25	..
Tu	..	5	12	19	26	..
W	..	6	13	20	27	..
Th	..	7	14	21	28	..
F	1	8	15	22	29	..
S	2	9	16	23	30	..

June.

S	..	7	14	21	28
M	1	8	15	22	29
Tu	2	9	16	23	30
W	3	10	17	24	..
Th	4	11	18	25	..
F	5	12	19	26	..
S	6	13	20	27	..

July.

S	..	5	12	19	26
M	..	6	13	20	27
Tu	..	7	14	21	28
W	1	8	15	22	29
Th	2	9	16	23	30
F	3	10	17	24	31
S	4	11	18	25	..

August.

S	..	2	9	16	23	30
M	..	3	10	17	24	31
Tu	..	4	11	18	25	..
W	..	5	12	19	26	..
Th	..	6	13	20	27	..
F	..	7	14	21	28	..
S	1	8	15	22	29	..

September.

S	..	6	13	20	27
M	..	7	14	21	28
Tu	1	8	15	22	29
W	2	9	16	23	30
Th	3	10	17	24	..
F	4	11	18	25	..
S	5	12	19	26	..

October.

S	..	4	11	18	25
M	..	5	12	19	26
Tu	..	6	13	20	27
W	..	7	14	21	28
Th	1	8	15	22	29
F	2	9	16	23	30
S	3	10	17	24	31

November.

S	1	8	15	22	29
M	2	9	16	23	30
Tu	3	10	17	24	..
W	4	11	18	25	..
Th	5	12	19	26	..
F	6	13	20	27	..
S	7	14	21	28	..

December.

S	..	6	13	20	27
M	..	7	14	21	28
Tu	1	8	15	22	29
W	2	9	16	23	30
Th	3	10	17	24	31
F	4	11	18	25	..
S	5	12	19	26	..

January.

SUNRISE AND SUNSET.

1st	Rises at ..	8 8	Sets at ..	4 0	15th Rises at ..	8 2	Sets at .. 4 18
8th	,, ..	8 7	,, ..	4 8	22nd ,, ..	7 55	,, .. 4 29

29th Rises at 7 46. Sets at 4 41.

RISING, SETTING, AND CHANGES OF THE MOON.

1st	Rises ..	10 32 aft.	Sets 11 30 morn.		15th Rises 10 58 morn.	Sets 10 54 aft.	
8th	,, ..	5 57 morn.	,, 1 50 aft.		22nd ,, 1 54 aft.	,, 6 22 morn.	

29th Rises 9 28 aft. Sets 9 50 morn.

Last Quarter, 3rd	10 12 morn.	First Quarter, 17th	6 18 morn.
New Moon, 10th	3 25 aft.	Full Moon, 25th	0 25 ,,

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	Th	1801	Union with Ireland
2	F	1868	DECIDED TO START SCOTTISH WHOLESALE SOCIETY
3	S	1882	W. Harrison Ainsworth died
4	S		**Second Sunday after Christmas**
5	M	1827	Duke of York died
6	Tu		*Epiphany*
7	W	1842	Retreat from Cabul
8	Th	1864	Prince Albert Victor born
9	F		Fire Insurance expires
10	S	1840	Penny Post commenced
11	S		**First Sunday after Epiphany**
12	M	1887	Lord Iddesleigh died
13	Tu	1873	*Crumpsall Works purchased*
14	W	1742	Halley, astronomer, died
15	Th	1877	*Cork Branch established*
16	F	1809	Battle of Corunna. Sir John Moore killed
17	S	1706	Benjamin Franklin born
18	S		**Second Sunday after Epiphany**
19	M	1876	Albert Music Hall, Glasgow, burnt
20	Tu	1779	David Garrick died
21	W	1793	Louis XVI. guillotined
22	Th	1831	Princess Christian born
23	F	1875	Canon Kingsley died
24	S	1886	Joseph Maas, vocalist, died
25	S		**Septuagesima Sunday**
26	M	1878	Great Famine in China
27	Tu	1823	Dr. Jenner died
28	W	1871	Paris capitulated
29	Th	1833	First Reformed Parliament met
30	F	1880	*S.S. "Plover" sold*—King Charles I. beheaded, 1649
31	S		*Nomination Lists : Last day for receiving*

February.

SUNRISE AND SUNSET.

1st Rises at.. 7 42	Sets at 4 49	15th Rises at.. 7 17	Sets at .. 5 14
8th „ .. 7 30	„ 5 1	22nd „ .. 7 3	„ .. 5 27

28th Rises at 6 51. Sets at 5 38.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. morn.	Sets 10 33 morn.	15th Rises 10 14 morn.	Sets 0 38 morn.
8th „ 7 42 „	„ 3 57 aft.	22nd „ 3 53 aft.	„ 7 3 „

28th Rises 10 47 aft. Sets 8 38 morn.

Last Quarter, 2nd..... 4 42 morn.	First Quarter, 15th..... 6 30 aft.
New Moon, 9th ..... 2 12 „	Full Moon, 23rd ..... 7 18 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	S		**Sexagesima Sunday**
2	M		*Candlemas Day—Tralee Branch opened, 1874*
3	Tu	1830	Marquis of Salisbury born
4	W	1852	Holmfirth Flood
5	Th	1881	Thomas Carlyle died
6	F	1685	King Charles II. died
7	S	1812	Charles Dickens born
8	S		**Quinquagesima Sunday**
9	M		Half Quarter Day
10	Tu	1840	Queen Victoria married. *Shrove Tuesday*
11	W	1826	London University Charter. *Ash Wednesday*
12	Th	1637	Ben Johnson died
13	F	1847	Turner, historian, died—Trial of Warren Hastings
14	S	1876	*Opening of Newcastle Building, Waterloo Street*
15	S		**Quadragesima—First Sunday in Lent**
16	M	1887	Wreck of the "George Cromwell"
17	Tu	1861	Duchess of Albany born
18	W	1889	*Enderby Extension opened*
19	Th	1843	Adelina Patti born
20	F	1855	Joseph Hume died
21	S	1879	*"Pioneer" launched—N. Y. Branch estab., 1876*
22	S		**Second Sunday in Lent**
23	M	1732	George Washington born
24	Tu	1806	James Barry died
25	W	1878	KILMARNOCK BRANCH SCOTTISH C.W.S. OPENED
26	Th	1871	Treaty of Versailles
27	F	1807	H. W. Longfellow born
28	S	1874	Tichborne Trial ended

March.

SUNRISE AND SUNSET.

1st	Rises at ..	6 49	Sets at	5 37	15th Rises at....	6 17	Sets at.. 6 2
8th	„ ..	6 33	„	5 50	22nd „	6 2	„ .. 6 14

29th Rises at 5 46. Sets at 6 26.

RISING, SETTING, AND CHANGES OF THE MOON.

1st	Rises..	morn.	Sets	8 54 morn.	15th Rises	8 39 morn.	Sets morn.
8th	„	6 10 „	„	2 50 aft.	22nd „	2 51 aft.	„ 5 31 „

29th Rises 11 6 aft. Sets 7 18 morn.

Last Quarter, 3rd	7 37 aft.	First Quarter, 17th	9 11 morn.
New Moon, 10th	11 51 morn.	Full Moon, 25th	1 12 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	S	1869	*1, Balloon Street, Manchester, Warehouse opened*
2	M	1797	Horace Walpole died
3	Tu		*Voting Lists : Last day for receiving*
4	W	1856	Covent Garden Theatre burnt
5	Th	1843	Thames Tunnel opened
6	F	1823	King of Wurtemburg born
7	S		*Newcastle and London Branch Quarterly Meetings*
8	S		**Fourth Sunday in Lent**
9	M	1874	*London Branch established*
10	Tu	1890	*Trial trip s.s. "Liberty"* [1817
11	W	1888	Emp. Wm. of Germany died—Dr. Livingstone born,
12	Th	1851	Owens College opened
13	F	1879	Duke of Connaught married [COMMENCED, 1887
14	S	1864	*Wholesale Society commenced business*—BATLEY MILL *General Quarterly Meeting*
15	S	1860	HECKMONDWIKE CO-OPERATIVE SOCIETY COMMENCED
16	M	1856	Prince Louis Napoleon born
17	Tu		*St. Patrick*
18	W	1848	Princess Louise born
19	Th	1832	First Reform Bill read a third time
20	F	1845	Sir Thomas Potter, Knight, died
21	S	1871	Princess Louise married
22	S		**Palm Sunday**
23	M	1849	Battle of Novara
24	Tu	1879	*Rouen Branch opened*—ECCLES CO-OPERATIVE SO-
25	W		*Lady Day* [CIETY COMMENCED, 1857
26	Th	1819	Duke of Cambridge born
27	F		**Good Friday**
28	S		*Co-operative Wholesale Society Quarter Day*
29	S	1879	*Trial trip s.s. "Pioneer"*—7TH CONGRESS, LONDON,
30	M		Bank Holiday [1875. Prof. T. ROGERS, Pres.
31	Tu	1883	SCOTTISH C.W.S. DECIDED TO ERECT BOOT FACTORY

April.

SUNRISE AND SUNSET.

1st Rises at .. 5 39 Sets at .. 6 31 | 15th Rises at.. 5 8 Sets at .. 6 53
8th „ .. 5 23 „ .. 6 42 | 22nd „ .. 4 53 „ .. 7 5
29th Rises at 4 39. Sets at 7 16.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 1 34 morn. Sets 8 52 morn. | 15th Rises 9 18 morn. Sets 1 57 morn.
8th „ 5 39 „ „ 6 16 aft. | 22nd „ 5 15 aft. „ 4 40 morn.
29th Rises 0 33 morn. Sets 7 40 morn.

Last Quarter, 2nd..... 6 30 morn. | First Quarter, 16th ..... 1 40 morn.
New Moon, 8th ..... 8 57 aft. | Full Moon, 24th ..... 5 5 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	W	1872	4TH CONGRESS, BOLTON. T. HUGHES, M.P., President
2	TH	1877	9TH CON., LEICESTER. Hon. A. HERBERT, Pres.–*L'pool*
3	F	1593	George Herbert, poet, born [*Depôt commenced, 1875*
4	S	1774	Oliver Goldsmith died
5	S		**First Sunday after Easter (Low Sunday)**
6	M	1874	6TH CONGRESS, HALIFAX. T. BRASSEY, M.P., Pres.
7	TU	1884	*Hamburg Branch commenced*
8	W	1778	Lord Chatham died [Insurance expires
9	TH	1877	LEITH BRANCH, SCOTTISH WHOLESALE, OPENED—Fire
10	F	1871	3RD CONGRESS, BIRMINGHAM. A. HERBERT, M.P., Pres.
11	S	1810	Sir H. Rawlinson born
12	S	1873	5TH CONGRESS, NEWCASTLE. J. COWEN, jun., Pres.
13	M		Length of day, 13h. 8m.
14	TU	1873	*Armagh Branch opened*—11TH CONGRESS, GLO'STER.
15	W	1746	Battle of Culloden [Prof. J. STUART, Pres., 1879
16	TH	1563	Shakspere born
17	F	1876	8TH CONGRESS, GLASGOW. Prof. HODGSON, Pres.
18	S	1873	Justus Liebig, chemist, died
19	S		**Third Sunday after Easter**
20	M	1868	SCOTTISH CO-OPERATIVE WHOLESALE S. ENROLLED
21	TU	1843	Duke of Sussex died
22	W	1878	10TH CONGRESS, MANCHESTER. Marq. of RIPON, President—*Nottingham Saleroom opened, 1886*
23	TH	1883	Red Cross Society instituted
24	F	1866	*Tipperary Branch opened*—Daniel Defoe died, 1731
25	S	1844	ROCHDALE PIONEERS' SOCIETY COMMENCED
26	S		**Fourth Sunday after Easter**
27	M	1882	Prince Leopold married
28	TU	1759	William Pitt born
29	W	1856	Russian War ended
30	TH	1884	Sir M. Costa, composer, died

May.

SUNRISE AND SUNSET.

1st Rises at .. 4 35 Sets at .. 7 21 | 15th Rises at.. 4 11 Sets at .. 7 43
8th „ .. 4 23 „ .. 7 31 | 22nd „ .. 4 2 „ .. 7 52
29th Rises at 3 54. Sets at 8 1.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises 2 11 morn. Sets 10 4 morn. | 15th Rises 10 23 morn. Sets 1 41 morn.
8th „ 4 37 „ „ 8 4 aft. | 22nd „ 6 37 aft. „ 3 30 „
29th Rises 0 48 morn. Sets 9 16 morn.

Last Quarter, 1st..... 1 51 aft. | First Quarter, 15th ..... 7 4 aft.
New Moon, 8th..... 6 16 morn. | Full Moon, 23rd..... 6 26 „
Last Quarter, 30th, 6 55 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	F	1769	Duke of Wellington born
2	S		*Nomination Lists : Last day for receiving*
3	S		**Rogation Sunday**
4	M	1876	Strike at Constantinople
5	Tu	1821	Napoleon Bonaparte died
6	W	1859	Humboldt died
7	Th		**Ascension Day (Holy Thursday)**
8	F	1860	Paper Duty abolished
9	S	1873	John Stuart Mill died—Half Quarter Day
10	S		**Sunday after Ascension Day**
11	M	1812	Spencer Percival shot
12	Tu	1869	Co-op. Printing Society, Manchester, com. business
13	W	1771	Robert Owen born
14	Th	1883	15TH CON., EDINBURGH. W. E. BAXTER, M.P., Pres.
15	F	1847	Daniel O'Connell died ; born August 6th, 1775
16	S	1871	Vendome Column destroyed
17	S		**Whit Sunday**—12TH CON., NEWCASTLE. Bishop
18	M		Bank Holiday [of DURHAM, President, 1880
19	Tu	1873	Metric System introduced
20	W	1506	Columbus died
21	Th	1888	20TH CONGRESS, DEWSBURY. E. V. NEALE, Pres.
22	F	1886	Lloyd Jones died
23	S	1883	Victor Hugo, novelist, died
24	S	1876	**Trinity Sunday**—*Purchase of s.s. "Plover"*
25	M	1885	17TH CONGRESS, OLDHAM. LLOYD JONES, President
26	Tu		Trinity Law Sittings and Term begin
27	W	1883	Coronation of the Czar of Russia
28	Th	1878	Earl Russell died [OXFORD. Ld. REAY, Pres., 1882
29	F	1859	MANCHESTER EQUIT. SOCIETY COM.—14TH CONGRESS,
30	S	1887	19TH CONGRESS, CARLISLE. G. J. HOLYOAKE, Pres.
31	S	1884	*Leicester Works Second Extension opened*

June.

SUNRISE AND SUNSET.

1st Rises at .. 3 51 Sets at .. 8 5 | 15th Rises at.. 3 44 Sets at .. 8 15
8th „ .. 3 46 „ .. 8 11 | 22nd „ .. 3 45 „ .. 8 18
29th Rises at 3 47. Sets at 8 18.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 1 52 morn. Sets 1 29 aft. | 15th Rises 0 43 aft. Sets 0 54 morn.
8th „ 4 52 „ „ 10 28 „ | 22nd „ 9 15 „ „ 3 26 „
29th Rises 0 15 morn. Sets 0 40 aft.

New Moon, 6th..... 4 26 aft. | Full Moon, 22nd ..... 5 12 morn.
First Quarter, 14th ..... 0 34 „ | Last Quarter, 28th ..... 11 16 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	M	1868	*Kilmallock Branch opened*
2	Tu		*Voting Lists : Last day for receiving*—16TH CON-
3	W		[GRESS, DERBY, 1884. SEDLEY TAYLOR, Pres.
4	Th	1833	General Wolseley born
5	F	1723	Adam Smith born
6	S		*Newcastle and London Branch Quarterly Meetings*—
7	S		[2ND CON,, MAN., 1870. W. MORRISON, M.P., Pres.
8	M	1881	13TH CONGRESS, LEEDS. Earl DERBY, President
9	Tu	1870	Charles Dickens died
10	W	1854	Crystal Palace opened
11	Th	1866	Money Panic
12	F	1889	Armagh Railway Disaster
13	S		*General Quarterly Meeting*
14	S	1886	18TH CONGRESS, PLYMOUTH. Lord MORLEY, Pres.
15	M	1875	*Manchester Drapery Warehouse, Dantzic St., opened*
16	Tu	1888	Emp. Fred. Wm. of Germany died. Reigned 14 wks.—
17	W	1862	Canning died [Indus. and Prov. Societies Act, 1854
18	Th	1876	W. PARE, FIRST SEC. OF CONGRESS BOARD, died
19	F	1834	Rev. C. H. Spurgeon born
20	S	1837	Queen's Ascension
21	S	1884	JOS. SMITH, ASSISTANT SEC. CONGRESS BOARD, died
22	M	1874	Brazilian Cable laid
23	Tu	1861	Lord Campbell died
24	W		*Midsummer Day*
25	Th	1884	*Newcastle Drapery Warehouse opened*
26	F	1830	George IV. died—Samuel Crompton died, 1827
27	S		*Co-operative Wholesale Society Quarter Day*
28	S		**Fifth Sunday after Trinity**
29	M	1879	Victoria University chartered
30	Tu	1879	*Goole Forwarding Depôt opened*

July.

SUNRISE AND SUNSET.

1st Rises at.. 3 49 Sets at.. 8 18 | 15th Rises at .. 4 1 Sets at .. 8 7
8th „ .. 3 54 „ .. 8 13 | 22nd „ .. 4 10 „ .. 7 59
29th Rises at 4 20. Sets at 7 49.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises.. 0 47 morn. Sets 3 24 aft. | 15th Rises 1 57 aft. Sets 11 54 aft.
8th „ 5 49 „ „ 10 10 „ | 22nd „ 9 19 „ „ 4 35 morn.
29th Rises 11 34 aft. Sets 2 34 aft.

New Moon, 6th ..... 3 59 morn. | Full Moon, 21st ..... 1 54 aft.
First Quarter, 14th ..... 5 29 „ | Last Quarter, 28th ..... 4 33 morn.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	W	1872	*Manchester Boot and Shoe Department commenced*
2	Th	1867	EQUITABLE CO-OP. BUILDING SOCIETY ESTABLISHED
3	F	1881	DUNDEE BRANCH OF SCOTTISH C.W.S. OPENED
4	S	1776	Independence Day, U.S.A.
5	S		**Sixth Sunday after Trinity**
6	M		Length of day, 16h. 24m.
7	Tu	1888	*Launch of s.s. "Equity"*
8	W	1797	Edmund Burke died
9	Th		Fire Insurances expire
10	F	1835	Hartlepool Tidal Harbour opened [INSTITUTED
11	S	1874	LANCASHIRE AND YORKSHIRE PRODUCTIVE SOCIETY
12	S	1869	**Seventh Sunday after Trinity**—*Limerick Branch*
13	M	1872	Ballot Act in operation [*opened*
14	Tu	1873	*Waterford Branch opened*
15	W		*St. Swithin's Day*
16	Th	1876	*Manchester Furnishing Department opened*
17	F	1845	Earl Grey died
18	S	1881	Dean Stanley died
19	S		**Eighth Sunday after Trinity**
20	M	1873	Lord Westbury died
21	Tu	1887	*Manchester New Furnishing Warehouse opened–Pur-*
22	W	1807	Garibaldi born [*chase of s.s. "Marianne Briggs," 1883*
23	Th	1833	Marquis of Hartington born
24	F	1851	Window Tax repealed
25	S	1883	Captain Webb drowned
26	S		**Ninth Sunday after Trinity**
27	M	1881	*Purchase of s.s. "Cambrian"*
28	Tu	1838	Queen Victoria crowned
29	W	1833	Wilberforce died
30	Th	1870	Franco-German War begun
31	F	1872	Edward Peace died

August.

SUNRISE AND SUNSET.

1st Rises at..	4 24	Sets at..	7 46	15th Rises at ..	4 46	Sets at ..	7 22
8th „ ..	4 34	„ ..	7 35	22nd „ ..	4 57	„ ..	7 10

29th Rises at 5 8. Sets at 6 55.

RISING, SETTING, AND CHANGES OF THE MOON.

1st Rises..	0 41 morn.	Sets 6 12 aft.		15th Rises	4 38 aft.	Sets 11 50 aft.	
8th „	8 17 „	„ 9 20 „		22nd „	8 41 „	„ 8 5 morn.	

29th Rises morn. Sets at 5 4 aft.

New Moon, 4th	5 12 aft.	Full Moon, 19th.....	9 28 aft.
First Quarter, 12th.....	9 12 „	Last Quarter, 26th	0 9 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	S		*Nomination Lists : Last day for receiving*
2	S		**Tenth Sunday after Trinity**
3	M	1732	Bank of England started—Bank Holiday
4	Tu	1873	*Cheshire Branch opened & Leicester Works purchased*
5	W	1876	*Leicester Works First Extension opened*
6	Th	1844	Duke of Edinburgh born
7	F	1870	Siege of Paris
8	S	1827	George Canning died
9	S		**Eleventh Sunday after Trinity**
10	M		Length of day, 9h. 9m.
11	Tu	1863	*Co-operative Wholesale Society enrolled*
12	W		Grouse shooting begins
13	Th	1870	Admiral Farragut died
14	F	1880	*Heckmondwike Boot and Shoe Works commenced*
15	S	1771	Sir Walter Scott born
16	S	1873	*C. W. S. Insurance Fund established*
17	M	1786	Frederick the Great died
18	Tu	1870	Battle of Gravelotte
19	W	1885	Foundation Stone of new Eddystone Lighthouse laid
20	Th	1868	Abergele Railway Accident
21	F	1867	Fifth Duke of Northumberland died
22	S	1800	Rev. Dr. Pusey born
23	S	1862	CORNER STONE, BLACKLEY STORE, LAID
24	M	1572	Massacre of St. Bartholomew
25	Tu	1886	*Longton Crockery Depôt opened*
26	W	1819	Prince Consort born
27	Th	1883	Comte de Paris claimed the French Throne
28	F	1850	Dover and Calais Cable laid
29	S	1867	CO-OP. INSURANCE COMPANY REGISTERED
30	S		**Fourteenth Sunday after Trinity**
31	M	1688	Bunyan died

September.

SUNRISE AND SUNSET.

1st	Rises at	5 13	Sets at 6 42	15th	Rises at	5 35	Sets at 6 14
8th	„	5 24	„ 6 30	22nd	„	5 46	„ 5 58

29th Rises at 5 58. Sets at 5 42.

RISING, SETTING, AND CHANGES OF THE MOON.

1st	Rises	2 35 morn.	Sets 6 41 aft.	15th	Rises	5 42 aft.	Sets at 0 57 morn.
8th	„	10 41 „	„ 8 20 „	22nd	„	8 4 „	„ 11 25 „

29th Rises 1 36 morn. Sets 5 7 aft.

New Moon, 3rd	8 16 morn.	Full Moon, 18th	5 4 morn.
First Quarter, 11th	11 7 „	Last Quarter, 24th	11 7 aft.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	Tu		*Voting Lists : Last day for receiving*
2	W	1871	"CO-OPERATIVE NEWS" FIRST ISSUED
3	Th	1658	Oliver Cromwell died
4	F	1837	Lord Ashburne died
5	S		*Newcastle and London Branch Quarterly Meetings*
6	S		**Fifteenth Sunday after Trinity**
7	M	1533	Queen Elizabeth born
8	Tu	1868	SCOTTISH WHOLESALE COMMENCED BUSINESS
9	W	1882	Battle of Kassassin
10	Th	1882	Battle of Tel-el-Kebir
11	F	1709	Battle of Malplaquet
12	S		*General Quarterly Meeting*
13	S	1884	LIFEBOAT "CO-OPERATOR No. 1" presented to R.N.L.I.
14	M	1852	Duke of Wellington died
15	Tu	1873	*Leicester Works commenced*
16	W	1830	First Railway opened
17	Th	1863	PAISLEY MANUFACTURING SOCIETY STARTED
18	F	1797	General Hoche died
19	S	1881	President Garfield died
20	S	1884	*21st Anniversary of C.W.S., Commemoration of*
21	M	1832	Sir Walter Scott died
22	Tu	1854	Lord Denman died
23	W		Autumn commences
24	Th	1882	Cetewayo arrived at Cape Town
25	F	1870	Siege of Paris commenced
26	S		*Co-operative Wholesale Society Quarter Day*
27	S		**Eighteenth Sunday after Trinity**
28	M	1870	Strasbourg surrendered
29	Tu		*Michaelmas Day—Bristol Depôt commenced, 1884* EDINBURGH CO-OP. PRINTING CO. COMMENCED, 1873
30	W	1758	Nelson born

October.

SUNRISE AND SUNSET.

1st	Rises at .. 6 1	Sets at .. 5 37		15th	Rises at .. 6 25	Sets at .. 5 6	
8th	„ .. 6 13	„ .. 5 22		22nd	„ .. 6 37	„ .. 4 52	

29th Rises at 6 49. Sets at 4 38.

RISING, SETTING, AND CHANGES OF THE MOON.

1st	Rises .. 3 56 morn.	Sets 5 36 aft.		15th	Rises 4 48 aft.	Sets 2 53 morn.	
8th	„ 0 11 aft.	„ 7 39 „		22nd	„ 8 1 „	„ 0 53 aft.	

29th Rises 2 53 morn. Sets 3 56 aft.

New Moon, 3rd	0 58 morn.	Full Moon, 17th	1 45 aft.
First Quarter, 10th	10 57 aft.	Last Quarter, 24th	1 56 „

Day of Month	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	Th	1873	Sir Edwin Landseer died
2	F	1786	Admiral Keppel died
3	S	1883	Burnham Beeches made public
4	S		**Nineteenth Sunday after Trinity**
5	M	1874	*Durham Soap Works commenced*
6	Tu	1884	*Launch of s.s. "Progress"*
7	W	1870	Battle before Metz
8	Th	1871	Chicago burnt
9	F	1759	Eddystone Lighthouse finished
10	S	1885	"Hell Gate" dynamited
11	S	1492	America discovered by Columbus
12	M	1886	*Launch of s.s. "Federation"*
13	Tu	1822	Canova died
14	W	1872	*C.W.S. Bank Department commenced*
15	Th	1815	Murat shot
16	F	1834	Houses of Parliament burnt
17	S	1874	First Hospital Saturday
18	S	1826	Last English Lottery
19	M	1745	Dean Swift died
20	Tu	1823	Thomas Hughes born
21	W	1805	Battle of Trafalgar
22	Th	1890	*Northampton Saleroom opened*
23	F	1821	Wallsend Colliery Explosion
24	S	1852	D. Webster died
25	S		**Twenty-second Sunday after Trinity**
26	M	1859	"Royal Charter" lost
27	Tu	1728	Captain Cook born
28	W	1844	Royal Exchange opened
29	Th	1831	Bristol Riots
30	F	1751	Sheridan born
31	S		*Nomination Lists: Last day for receiving—Leeds [Saleroom opened, 1882*

November.

SUNRISE AND SUNSET.

1st	Rises at .. 6 55	Sets at .. 4 32		15th	Rises at .. 7 19	Sets at .. 4 9	
8th	„ .. 7 7	„ .. 4 20		22nd	„ .. 7 32	„ .. 4 1	

29th Rises at 7 42. Sets at 3 54.

RISING, SETTING, AND CHANGES OF THE MOON.

1st	Rises .. 6 21 morn.	Sets 4 34 aft.		15th	Rises 4 1 aft.	Sets 6 18 morn.	
8th	„ 1 45 aft.	„ 9 37 „		22nd	„ 10 19 „	„ 1 19 aft.	

29th Rises 5 18 morn. Sets 2 56 aft.

New Moon, 1st	6 33 aft.	Full Moon, 16th	0 16 morn.
First Quarter, 9th.....	8 46 morn.	Last Quarter, 23rd	8 26 „

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	S	1882	*Tea and Coffee Department, London, commenced*
2	M	1887	*London Branch New Warehouse opened—Manufac. of*
3	Tu	1800	Battle of Hohenlinden [*Cocoa and Chocolate com.*
4	W	1869	George Peabody died
5	Th	1861	HALIFAX INDUSTRIAL SOCIETY INAUGURATED
6	F	1869	Blackfriars New Bridge opened
7	S	1801	R. D. Owen, reformer, born
8	S	1886	*Trial trip s.s. "Federation"*
9	M	1841	Prince of Wales born
10	Tu	1483	Martin Luther born
11	W	1887	Manchester Ship Canal, first sod cut
12	Th	1854	Charles Kemble died
13	F	1851	Telegraph between England and France opened
14	S	1844	Abercrombie, metaphysician, died
15	S		**Twenty-fifth Sunday after Trinity**
16	M	1811	John Bright born
17	Tu	1858	Robert Owen died
18	W	1852	Duke of Wellington buried at St. Paul's
19	Th	1815	Peace proclaimed
20	F	1869	Suez Canal opened
21	S	1835	The "Ettrick Shepherd" died
22	S	1804	Rochdale Canal opened
23	M	1641	Irish Rebellion
24	Tu	1879	Sergeant Cox died
25	W	1889	T. A. Walker, contractor for Ship Canal, died
26	Th	1871	*Opening of Newcastle-on-Tyne Branch*
27	F	1812	Lord Selborne born
28	S	1814	*Times* printed by steam
29	S		**Advent Sunday**
30	M		*St. Andrew's Day*

December.

SUNRISE AND SUNSET.

1st	Rises at ..	7 45	Sets at .. 3 54	15th	Rises at ..	8 1	Sets at .. 3 49
8th	,, ..	7 54	,, .. 3 49	22nd	,, ..	8 6	,, .. 3 51

29th Rises at 8 8. Sets at 3 56.

RISING, SETTING, AND CHANGES OF THE MOON.

1st	Rises ..	7 49 morn.	Sets 3 41 aft.	15th	Rises	3 33 aft.	Sets 8 6 morn.
8th	,,	0 59 aft.	,, 11 38 ,,	22nd	,,	11 33 ,,	,, 0 11 aft.

29th Rises 6 44 morn. Sets 2 13 aft.

New Moon, 1st	11 45 morn.	Full Moon, 15th	0 53 aft.
First Quarter, 8th..	5 13 aft.	Last Quarter, 23rd	5 39 morn.

New Moon, 31st..... 3 20 morn.

Day of Month.	Day of Week.	Year.	REMARKABLE DAYS, FESTIVALS, ANNIVERSARIES, &c.
1	Tu		*Voting Lists : Last day for receiving*
2	W	1851	Coup d'Etat in Paris
3	Th	1820	Lord Chief Justice Coleridge born
4	F	1795	Thomas Carlyle born
5	S		*Newcastle and London Branch Quarterly Meetings*
6	S		**Second Sunday in Advent**
7	M	1815	Marshal Ney shot
8	Tu	1863	Fire at Santiago
9	W		Grouse Shooting ends
10	Th	1768	Royal Academy instituted
11	F	1805	Archdeacon Denison born
12	S		*General Quarterly Meeting*
13	S	1884	Attempt to blow up London Bridge
14	M	1861	Prince Consort died
15	Tu	1683	Isaak Walton died
16	W	1865	Commercial Treaty with Austria signed
17	Th	1770	Beethoven born
18	F	1862	Total Abolition of Slavery in United States
19	S	1805	Lord Beaconsfield born
20	S		**Fourth Sunday in Advent**
21	M		*St. Thomas*
22	Tu	1811	Archbishop Tait born
23	W	1861	Funeral of Prince Consort
24	Th	1863	W. M. Thackeray died
25	F		**Christmas Day**—OLDHAM INDUS. SOCY. COM., 1850
26	S		*Quarter Day*—Boxing Day—Bank Holiday
27	S		**First Sunday after Christmas**
28	M		Length of day, 7h. 47m.
29	Tu	1809	Right Hon. W. E. Gladstone born
30	W	1885	*C.W.S. Fire, London Tea Department*
31	Th	1882	Gambetta, statesman, died

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